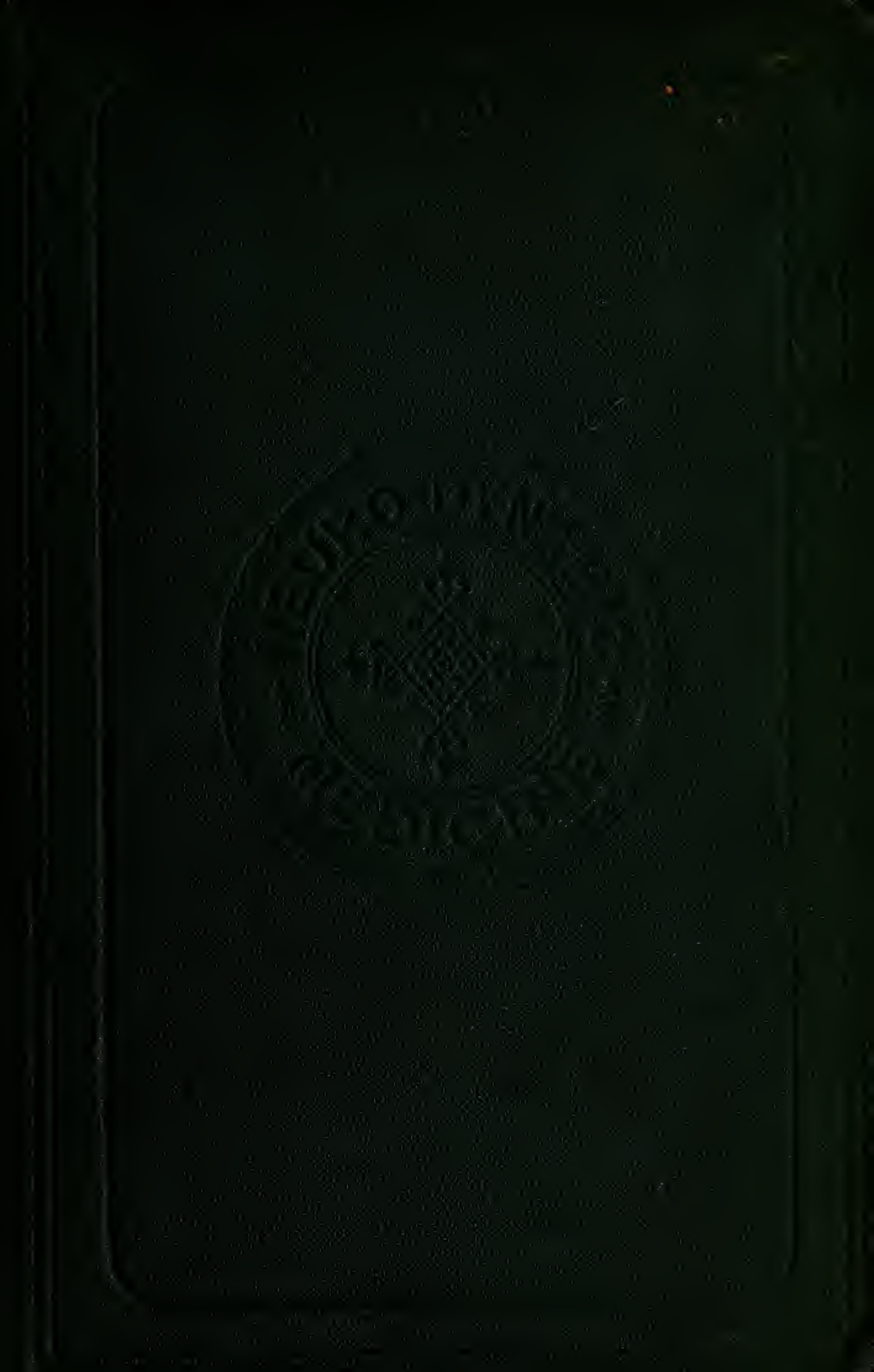

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NEURO-DYNAMIC MEDICINE,

PART II.:

CASES OF NEURALGIA

AND OF OTHER

DISEASES OF THE NERVOUS SYSTEM.

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CASES OF

NEURALGIA

AND OF OTHER

DISEASES OF THE NERVOUS SYSTEM:

PRECEDED BY

AN ANALYTICAL EXPOSITION OF THEM,

EXEMPLIFYING

THE PRINCIPLES AND PRACTICE

OF

NEURO-DYNAMIC MEDICINE.

BY

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LONDON:

J. & A. CHURCHILL, NEW BURLINGTON STREET.

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LONDON:
PRINTED BY M'GOWAN AND CO. (LIMITED),
GREAT WINDMILL STREET, W.

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CONTENTS.

SECTION I.

PAGE
INTRODUCTION: GENERAL PRINCIPLES vii

SECTION II.

THE SOOTHING AND AGREEABLE EFFECTS OF THE SPINAL ICE-BAG.

Remedies which are needed are generally agreeable 1
The Spinal Ice-bag designed not for the healthy but for the sick ... 3
And only for such of those whose Maladies can best be treated by means of Ice 3
In all such cases the Spinal Ice-bag is agreeable 3
Evidence that sufferers from Sea-sickness find the Spinal Ice-bag agreeable 3
Evidence that sufferers from Diarrhœa find the Spinal Ice-bag agreeable 4
Evidence that sufferers from Neuralgia find the Spinal Ice-bag agreeable 5
Evidence that the use of the Spinal Ice-bag makes the patient warm 6

SECTION III.

NEURO-DYNAMIC MEDICINE EXEMPLIFIED: AN ANALYTICAL EXPOSITION OF ITS EFFECTS.

Principle according to which the Reports of Cases constituting Section IV. are presented 10
Advantages of the Method adopted 10
Order of Classification of the Cases 11
Cases Exemplifying the Neuro-Dynamic Treatment of
Facial Neuralgia 11
Cervico-occipital Neuralgia 13
Brachial ,, ... 13
Intercostal ,, ... 13
Lumbo-abdominal ,, ... 14
Hypogastric ,, ... 14
Neuralgia of the Lower Extremities 14
General Neuralgia 14
Painful Excitability of the Spinal Cord 14
Backache or Lumbago 15
Headache 15
Chestache 16
Gastralgia 17
Enteralgia 17
Nephralgia 17

Cases Exemplifying the Neuro-Dynamic Treatment of PAGE
Neuralgia of the Testicle 17
Ovarian Neuralgia 18
Uterine Neuralgia 18
Hyperæsthesiæ 19
Cerebro-spinal Fever 20
Cramps and other Disorders of Voluntary Muscles 22
Epilepsy : *le grand et le petit mal* 23
Fainting Fits 24
Tinnitus Aurium 24
Subjective Spectra 25
Giddiness 25
Sleeplessness 25
Talking during Sleep 27
Tendencies to Insanity 27
Impairment of Memory 28
Impairment of Sight 28
Numbness, or Impairment of Sensibility 29
Partial Paralysis 29
Disorders of Local Nutrition (Trophic Phenomena : Swelling and Tenderness) 30
Inequality of the Mammæ 32
Globus Hystericus 32
Shortness of Breath 32
Cough 33
Expectoration 34
Nausea and Vomiting 34
The Sickness of Pregnancy 35
Diarrhœa 35
Flatulency 36
Constipation of the Bowels 37
Deficient Menstruation 37
Retarded and Excessive Menstruation 38
Retarded and Scanty Menstruation 38
Intermittent Menstruation 39
Leucorrhœa 39
Prolapsus Uteri 39
Excessively frequent Micturition 40
Albuminuria with Anasarca 40
Diabetes Mellitus 40
Coldness of the Extremities 41
Coldness of the general Surface of the Body ... 41
Tenderness along the Spine 41
The Correlations of Different Diseases 42

SECTION IV.

NEURO-DYNAMIC MEDICINE EXEMPLIFIED : A SERIES OF CASES ILLUSTRATING ITS PRINCIPLES AND PRACTICE.

INTRODUCTION.

GENERAL PRINCIPLES.

The last three Chapters of my work on Neuralgia consist almost exclusively of reports of carefully observed facts, proving at once the truth of the principles, and the remarkably great success of the practice of that system of Medicine which I have designated Neuro-Dynamic; and as it seems to me expedient to place that part of the work within reach of those who may not wish to read the pathological exposition and discussions which occupy a large proportion of its pages, I am induced to reprint those chapters as a separate book.

Those who have read the Chapter on "Treatment," contained in that work, or the "Introduction" to my work on "Sea-Sickness," are so far acquainted with the general principles underlying the practice of Neuro-Dynamic Medicine as to be in a position to understand and appreciate the reports of cases here given; those who have not read either the one or the other may obtain a general idea of the principles in question from the following summary statement of them:—

"1. That the chief function of the sympathetic nervous system consists in regulating the diameters of the blood-vessels throughout the body.

"2. That when the sympathetic ganglia are in a state of maximum hyperæmia the nervous effluence from them to the muscular coats of the arteries to which they are severally related, stimulates them so excessively as to induce in them a condition of tonic spasm—a spasm so intense as to result in shutting off the blood altogether from a large proportion of the peripheral arteries.

"3. That when the sympathetic ganglia are in a state of maximum anæmia the nervous effluence from them to the muscular coats of the arteries to which they are severally related becomes so extremely feeble that a condition resembling paralysis is induced; the muscular coats of the arteries become consequently

extremely relaxed; and, as the blood flows in the direction of least resistance, the parts supplied by the arteries in question become suffused with blood to an excessive degree.

"4. That when the spinal cord is in a state of hyperæmia, cramps of the involuntary muscles surrounding the alimentary tube as well as cramps, or even convulsions of the voluntary muscles, which are due to such hyperæmia, are likely to ensue.

"5. That every gland and glandular follicle in the body is under the control of one motor nerve (which I call the *positive motor*) emerging from the cerebro-spinal system, and distributed to its secreting cells in order to regulate its functional activity; and of another motor nerve (which I call the *negative motor*) emerging from the sympathetic system, and distributed to its artery or arterial twig, in order to regulate its blood-supply.

"6. That in the same manner as glands are supplied with positive, as well as with negative, motor nerves, so, there is reason to believe, every tissue of the body is thus supplied, and is thus placed and sustained in a state of elective affinity for the elements of the blood requisite for its nourishment and functions.

"7. That the sympathetic ganglia and the spinal cord can be rendered hyperæmic or anæmic, artificially, by means of heat, in the one case, and cold in the other, applied along the spine.

"8. That cold applied along the spine will subdue cramps or excessive tension of both voluntary muscles, will lessen sensibility, will lessen secretion, and, while increasing within certain limits the general circulation and bodily heat, is capable by prolonged use of lessening textural nutrition.

"9. That heat applied along the spine will (in some cases) induce cramps of both voluntary and involuntary muscles, will increase sensibility, will increase secretion, and will lessen the general circulation and bodily heat."

The general pathology and therapeutics consisting in the application of the principles here expressed form the distinctive feature of each of my medical works, and are instructively exemplified in respect to a considerable variety of diseases by the Cases reported in the last Section of this volume.

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A SERIES OF CASES

PRECEDED BY

AN ANALYTICAL EXPOSITION OF THEM.

SECTION I.

THE SOOTHING AND AGREEABLE EFFECTS OF THE SPINAL ICE-BAG.

WERE I to adduce all the evidence in my possession that ice applied along the spine in those cases in which it is therapeutically desirable, is agreeable, soothing, and refreshing, I should fill a long chapter with this evidence alone. I must, however, confine what I have to say on this subject within a very short one. Many persons shudder at the bare idea of having a column of ice placed along the back, and think that were it continued there for a moderately short time the discomfort would be extreme, that its continued use would be speedily followed by more injurious results, and, in short, that in any case the remedy would be worse than the disease. These suppositions, however, are not justified by experience, which, in fact, completely contradicts them.

Indeed, experience proves that in the great majority of cases the application of heat along the spine is far more objectionable than is the application of cold. In those cases of disease in which the use of the Spinal Water-Bag, containing water at, say 115° or 120° Fahrenheit., is indicated, the heat feels positively pleasant: cases of common catarrh, of hyperæmic headache induced by some temporary cause, of epistaxis, pulmonary congestion and pulmonary hæmorrhage, and cases of dysentery and of hæmorrhoids are cases of this kind. But, except in such cases, heat, even of the moderate degrees just mentioned, when applied along the spine feels positively unpleasant, and it may produce other objectionable effects besides those of mere discomfort: many persons are acquainted with the feeling of sickness induced by standing with the back to the fire; and those of my readers who are acquainted with the neuro-pathology of nausea and vomiting, and with their attendant symptoms (first fully explained in my Essay on Sea-Sickness) know that the condition of the nervous centres out of which those symptoms arise is one which may originate a considerable number and variety of disorders. In my work on Neuralgia many of these are pointed out.

The age we live in is pre-eminently an age of restless activity and hard work: the severe struggle for mere existence in which

the millions of so-called "working classes" are engaged; the eager pursuit of wealth which calls forth all the energies of the great majority of the middle classes; the literary, professional, and political ambition which constrains its many thousands of votaries to toil almost incessantly; the inordinate personal vanity of every class of womankind, which, by inducing the reckless extravagance in dress now indulged in, intensifies enormously the labours and sacrifices of nearly the whole of one sex and of a large proportion of the fathers and husbands of the other; and, finally, the insatiable lust of social distinction which impels a large proportion of the community into unceasing competition with each other in order to attain it, co-operate to render the whole nervous system pre-eminently energetic, active, and excitable, and therefore especially liable to become morbidly hyperæmic and to assume various morbid conditions associated with hyperæmia as their proximate cause. Such being the case, the reader will easily understand how it comes to pass that the great majority of diseases are of a kind the Neuro-dynamic treatment of which involves the use of the sedative power of cold, and that, as already said, in the great majority of cases, the application of heat along the spine is far more objectionable than is the application of cold.

In my work on "Neuralgia," at page 289, *et seq.*, I have presented a considerable body of evidence, proving that the Spinal Ice-bag, when rightly applied, possesses in a remarkable degree the power of inducing sleep; and everyone knows that, as a general rule, the operation of causes producing sleep is far from unpleasant. I suppose, therefore, that my readers will experience no difficulty in recognising that when the Spinal Ice-bag produces sleep, the process by which it does so must involve the exercise of a soothing and comforting influence. Now the delightful sensations induced by any narcotic are proportionate to the real need of sleep felt by the patient at the time he makes use of it, and I venture to affirm in respect to medicines generally, that when the medicine given is really needed, when it fulfils a want indubitably experienced by the patient, when, in fact, its effect is truly medicinal, the patient himself likes the taste of it, and feels its immediate influence agreeable. I have verified the truth of this observation in respect to acids, alkalies, and bitter tonics over and over again. The instincts of suffering organisms, though doubtless often perverted, are, I believe, generally reliable, and I am constrained to think that were they more carefully heeded and more faithfully followed than they are medicines would not excite those feelings of repulsion or disgust which they commonly do now, and the art of medicine itself, as well as its professors, would cease to be the butt of opprobrious jokes, which being as generally and thoroughly relished as they

are common, in more senses than one, indicate only too truly how little faith is inspired even by the medical art of the nineteenth century.

With reference to the sensations produced by the Spinal Ice-bag, my readers must bear in mind that it is designed not for the healthy but the sick, and only for that portion of the sick in whom has become established precisely that morbid condition of the circulation of the blood in the nervous centres, which the application of cold is of all agents the most capable of subduing. Hence in these cases, and in these only, inasmuch as the Spinal Ice-bag subdues a morbid condition in the very citadels of life, a condition in which the phenomena of the disease in question originate, and inasmuch as the cold restores the circulation of the blood in those nervous centres to its normal state without contaminating or embarrassing the system with any medicines, it seems, *à priori*, that such physiological changes must inevitably be accompanied with sensations of comfort and pleasure, as experience proves them to be. In the case of a person who experiences sickness or nausea when he sits or stands with his back towards a fire, every one can readily understand that no medicine given internally to allay the sickness or nausea would be likely to be so agreeable, and that no treatment would be likely to be so effective as would be a direct reversal of the condition which induced the disorder, viz., the application of cold precisely to the part where the heat had been previously applied. Now the hyperæmia of the spinal and sympathetic nervous centres which is the proximate cause of the sickness, and which is quickly induced by the heat of a domestic fire in the case supposed, is a condition induced by solar heat in cases of summer diarrhœa, by motion (which is convertible into heat) in cases of sea-sickness, and which produces the same effects as those produced by heat, and by various forms of nervous irritation and excitement which operate as causes of numerous and various diseases. In all such diseases the application of the Spinal Ice-bag must evidently induce feelings as agreeable, and results as beneficial as those consequent on its application in cases of sickness caused by exposing the back to the fire, and precisely for the same reasons ; and that such is really the case I will now prove by mentioning a few examples.

The following evidence is extracted from the reports of the *Experiments* published in my pamphlet on " Sea-Sickness."

Case 1.—" I don't know," the patient said, " the effects of ice on a long-continued voyage, but I believe that the feeling of perfect comfort would continue as long as the ice is kept on." Case 2—" She felt the cold to the back peculiarly grateful, but wished it more intense ; the bag was therefore placed next the skin. This change delighted her." Case 6—" About twenty

minutes before reaching Boulogne, the ice in the bag was so nearly melted as to cause her to feel that the refreshing and sustaining influence of the cold was lessening; I therefore placed an additional bagful of ice outside her dress, and over the bag already supplied; this sufficed to restore the agreeable sensations she had hitherto enjoyed, and to continue them until she landed at Boulogne." Case 14.—"He said he felt the cold agreeable and refreshing."

In my pamphlet of "Cases of Diarrhœa and Cholera"* there is the following record :—

"The application of the Spinal Ice-bag is generally felt to be peculiarly comfortable, and in many cases positively pleasant. In Case 4, the child's mother says, 'He seemed to like the Ice-bag; he holds his head down to let the bag be put on directly I tell him the bag is coming, so I think it must be a comfort to him.' In Case 9 the child's mother says, 'She (the child) is well contented with the Ice-bag.' In Case 21, the child, who usually slept on the Spinal Ice-bag each evening, 'would not go to sleep till he had had it: he insisted on having it.' Dr. Moorhead, relating his own experience, Case 27, says, 'The Ice-bag proved most grateful.' The Director of the Hydropathic Establishment at Melrose, who reported Case 28, writes,—'One thing has much struck me, viz., the liking that sensitive chilly patients have for the cold bag to the spine, although frightened to think of it before they make trial.' Dr. Druitt on one occasion saw some of my patients with me in order to inform himself of the results of my treatment of paralysis and epilepsy. After confessing that he was agreeably surprised by those results, and stating that 'there was no mistaking the testimony of the patients that those results had been most beneficial,' he added, 'I learned from all the patients that the treatment had made them more comfortable—I mean as regards their general feelings of health and animal sensations, without reference to the relief of particular symptoms.'"

Generally speaking, patients who use the Spinal Ice-bag are greatly surprised to find how agreeable it is when rightly applied in suitable cases; but the feelings which it induces differ considerably in different persons. One finds it neither agreeable nor disagreeable, and, judging from his sensations merely, would not know that cold is being applied along his spine at all. Another has a more distinct perception of the fact, and finds the cold rather agreeable than otherwise. Another says it is very pleasant. Another declares it to be wonderfully comforting and delightful;

* "Cases of Diarrhœa and Cholera treated successfully through the Agency of the Nervous System chiefly by means of the Spinal Ice-bag." Pp. 32, 33.

and often still more emphatic epithets are employed by patients to express the pleasure which the use of the cold induces. I have not, as a rule, recorded their expressions on this point, but in a few of the reports given hereafter they will be found mentioned. For instance, in Case 10 the patient found no discomfort from the use of the ice, but, on the contrary, she found the ice pleasant. In Case 29 the patient said,—"The ice is beautiful: I don't think I shall ever be able to do without it—it is so comforting." Having suffered a long time from want of sleep, in consequence of pain, she pronounced, as she thought, the highest eulogium on the Spinal Ice-bag when she said,—"The ice makes me long to go to sleep in the daytime, but my business prevents me." In Case 40 the patient experienced distinct relief while the ice was being applied, and found it "very agreeable." In Case 56 the patient said the ice was "rather pleasant than otherwise." In Case 65 the patient said,—"The ice was very comfortable—quite refreshing:" and again she said,—"The relief I felt from the ice I can't describe." In Case 76 the patient spoke repeatedly of the pleasantness of the ice, and having also long suffered from sleepless nights, she too was delighted with what she suspected to be its sleep-inducing charm. She said,—"I can sleep at any time in the daytime now: I fancy the ice draws you to sleep; I don't know whether it is fancy." In Case 80 the patient said,—"I find the ice very agreeable: I look for it, and would like to have it on longer each time." And again she said,—"I go to sleep with the ice on: it's astonishing how pleasant it is." In Case 83 the patient found the ice "very comfortable." In Case 95 the patient was much surprised to find that it was so agreeable. Having passed five days without using it, he felt, he said, the need of it. I asked him what he meant by saying he felt "the need of it," and he replied,—"Why, Sir, I feel that I like it: I feel that it braces me up." In a case of chronic inflammation of the spinal cord, now under my care, and treated by means of the Spinal Ice-bag, the patient exclaimed when it was first applied—"Oh, that's delightful!" and each subsequent application she has found peculiarly comforting and grateful.

But, though the evidence just quoted is strikingly contradictory of the generally-entertained opinion, that ice applied to the spine must be horribly unpleasant, I shall now adduce proofs of a still more decisive and conclusive kind that that opinion is erroneous. That opinion is founded, of course, on the assumption that the Spinal Ice-bag must induce a general feeling of coldness, or even cause shivering in the person to whom it is applied. As a matter of fact, however, in those cases in which its remedial influence is capable of being exerted, or, in other words, when its physiological action is needed, it really makes the patient warm. Now, if it

does, the opinion in question must be erroneous; and that it does so the following authentic statement of facts, the like of which may be observed and verified by any physician who will make the necessary experiments, proves beyond the possibility of contradiction.

The following quotations are from the records of cases given at the end of the present volume :—

Case 1.—Before treatment the patient's hands were generally cold, her feet habitually so; while under treatment "her feet and hands became continuously warm." Case 4.—The patient, aged sixty, "although warmly clothed, suffered extraordinarily from cold. She had always been cold to the touch, she said, even over the shoulders and bosom. At the end of the first week of treatment her feet had become constantly warm—warmer than she had ever felt them in her life," and within less than a month from the time when she began to use the Spinal Ice-bag she had "become wonderfully warm all over." Case 6.—Before treatment the patient's feet "were always cold;" during treatment they became quite warm, so that, as her mother said, there was "no longer any occasion to put them in hot water." Case 8.—The feet were usually cold before treatment began; during its continuance they became "completely and permanently warm." Case 9.—Before treatment the feet were "habitually cold;" within a month they had become "continuously warm." Case 10.—The feet which had been habitually cold during several years, became quite warm under the influence of the Spinal Ice-bag; but while it was left off for a few days, before their warmth had been thoroughly re-established, they ceased to be warm. Of course, the re-application of the ice restored their natural warmth as before. Case 13.—Miss B. suffered from general coldness, but her extremities were especially cold—her feet being the coldest. In the course of the first seven days of treatment she found that she became quite warm all over in about five minutes after applying the Spinal Ice-bag; but that she felt cold again between the applications. At a subsequent date she said that after using the bag for half-an-hour she became so uncomfortably warm that she could not bear it to the end of three-quarters of an hour as prescribed. This experience suggests to me to observe that, in some cases, the extremities become uncomfortably hot under the influence of the Spinal Ice-bag. The lower extremities of one of my patients became so hot that I was obliged to lessen the force of the cold by wrapping the Ice-bag in flannel. Another patient (a paralytic) who, when he came to me, complained, *inter alia*, of being "cold all over," and especially of coldness of the hands and feet, even in the hottest weather, reported, after he had been under treatment somewhat less than a month, that they had

become "very hot—very hot." In Case 14, the hands and feet which, before treatment, were habitually cold, became permanently warm while the treatment proceeded. In Case 22, the patient's extremities, which were habitually cold—the legs and feet being excessively so—were rendered completely and permanently warm by the Spinal Ice-bag. In Cases 23 and 25, the feet, which had been constantly cold, became quite warm; and, in Case 25, the patient's feet became cold again when the use of the Spinal Ice-bag was discontinued. In Case 27 the patient, aged fifty-six, whom I saw for the first time January 20, 1868, suffered much from general coldness, and had become much more chilly than he used to be. His feet were often cold for a couple of hours together after he went to bed; he could hardly sleep for them. Jan. 29, he said: "I've become generally warmer, just as I used to feel several years ago; directly I put the ice on my feet became warm, warmer than I can get them by the fire." Feb. 13, he said: "I continued to keep quite warm while watching* outside Broadwood's premises on a very cold night; I was very warm all night;" whereas previously, as he assured me, when watching on less cold nights, and in just the same clothes, he was very cold. April 1, 1872, he said: "One very curious thing has happened to me; I used to have very cold feet, I may call them excessively cold, in bed; since I've used the ice I never have a cold foot."

In Case 28, the feet which had been "always cold" became warm during treatment. Case 29.—The patient suffered from excessive coldness of both the knees and feet, which became thoroughly warm under the influence of the ice. She said: "If you are lying in bed a short time [on the ice] it's wonderful how warm your feet get." In Case 30, the patient complained, Feb. 26, 1868, that both knees had been extremely cold during, at least, the previous twelve months; and while under treatment, he said, March 14th, "I've noticed particularly that the knees have become much warmer." Case 31.—Before treatment the patient's feet were "always dreadfully cold;" after she had been under treatment about six weeks she said that her feet were decidedly and continually warmer, and that she was warmer all over. She remarked: "I feel myself much warmer with the ice on than when it is off." In Case 33, the feet, previously cold, were made warm by the ice. In Case 37, there was a like result. In Cases 40 and 42, the patients gave similar testimony. In Case 43, the patient reported that the application of the Spinal Ice-bag speedily made her warm all over. At first, fearing that it would make her cold, she sat near the fire

* During the period when attacks by the "Fenians" were talked of.

while using it, but soon found it needless to do so, and that having put on the bag when her feet were very cold, they became quite warm within half-an-hour. At the end of three weeks from the beginning of treatment, she said she continued wonderfully warm, and that if she happened to be cold when going out to walk, she became warm much more readily than formerly. She also reported that having left off the ice for ten days she became dreadfully cold again. In Cases 45 and 47, the feet became "much warmer" during treatment. In Case 52, the patient reported herself especially improved in respect to increase of circulation, denoted by increased warmth. She said: "I am natural now; I was not natural before, I was so cold; the least thing makes me warm now." In Case 56, the patient, who had suffered from coldness of the feet as long as he could remember, reported that the Spinal Ice-bag had made his feet "immensely warmer." In Case 58, when the patient was first seen, Nov. 20, 1869, she suffered generally from being cold, and her lower extremities, from the knees downwards, were habitually very cold. Jan. 18, 1870, her hands and legs were reported to have become very warm; and her mother volunteered the remark that the child needed less clothing at night. In Case 59, the patient's extremities were extremely cold; "in fact," her mother said, "I might say they are never warm:" within a fortnight after treatment began, she had become notably warmer, and her circulation and temperature steadily improved. In Case 60, the patient suffered "very much" from coldness of the feet, especially at night, but they became quite warm under the influence of the ice. Rose G., Case 68, whose hands were cold and clammy, who was much troubled with coldness of the feet and general chilliness, became generally warm during the first month of treatment. In Case 69, the patient's feet were "always cold:" she said (Feb. 7, 1871), "I have often been kept awake hours with my feet and knees cold." On March 28 she reported, "I like the feeling of the ice; I've not felt cold in bed since I've used it." In Case 70, the patient's feet were "almost invariably cold." After treatment a month she said, "I like the ice; it sends me to sleep." Again, April 18, she reported that her feet had become "decidedly warmer;" and May 8 she said, "the increased warmth of my feet continues." Mrs. L., Case 74, had cold feet "nearly always," and suffered from general coldness: her feet became continuously warm, and she soon recovered her normal temperature generally. Louis C., Case 79, had cold feet habitually: they became thoroughly warm during the first week of treatment. In Case 80, the patient, who complained that her feet were habitually and excessively cold, found that they had become much warmer within seven

days after treatment began. Mrs. A., Case 83, who complained of coldness of the feet and of a feeling as if cold water were poured down her back, was completely relieved of both her troubles by the Spinal Ice-bag. Case 86 (Nov. 25, 1871).—Mrs. P., felt very cold since first attacked with diarrhœa, her feet being "dreadfully cold, like stones." Dec. 2, she said, by the time she had had ice on twenty minutes it seemed to warm her all over: her feet became warmer than they had been for months before. In Case 90, Mrs. J., who had chronic diarrhœa, suffered (Dec. 13, 1871) from general coldness: the cheeks and extremities were markedly cold, the arms being clammy. Dec. 19, her forehead, cheeks, and extremities had become quite warm, and all clamminess had gone. She said, "I fancy the ice draws me to sleep." Whereas her sleep was formerly much broken, she now slept quite soundly, and did not wake till morning. In Case 91, the patient, who had extremely cold feet, reported that she experienced a decided increase of warmth in them within seven days from the beginning of treatment. In Case 95, the patient was troubled habitually with extreme coldness of the feet: they became thoroughly warm during treatment. Case 96 is especially remarkable as an illustration of the power of the Spinal Ice-bag to increase the peripheral circulation and, consequently, the evolution of animal heat. The patient, aged sixteen, had suffered from infancy from a deficiency of circulation, so pronounced as to have been permanently characterised not only by extreme general coldness, but also by blueness of the surface, especially of the face and hands; and he not infrequently had severe shivering fits. By the use of the Spinal Ice-bag the whole body was made thoroughly warm and the complexion florid. In Case 97 the patient, who, after suffering from "faint feelings," grew very cold, and whose feet, her mother said, were "like icicles," ceased altogether to grow cold generally, and her feet became comfortably warm.

SECTION II.

NEURO-DYNAMIC MEDICINE EXEMPLIFIED: AN ANALYTICAL EXPOSITION OF ITS EFFECTS.

In accordance with the principle enunciated and, I hope, established in the work on "Neuralgia" from which these Sections are reprinted, that, whatever may be the remote or exciting cause of pain in different cases, the immediate or essential cause in all cases is one and the same, viz., hyperæmia of the sensory centre of the affected nerve, I maintain that there are no essential or fundamental differences in respect to the nature of the pain observable in different cases, however numerous and varied may be the aspects in which it presents itself, and therefore that all cases of disease in which pain is an element are, in so far as the pain is concerned, as really and truly neuralgic as are those in which pain of a kind now generally defined as neuralgia is the only notable feature.

Acting on this conviction, I have included in the collection of cases reported in the next Section several which certainly would not be termed neuralgic by the authors of the classification of diseases published by authority of the Royal College of Physicians. This plan while being, as I hold it to be, pathologically justifiable, possesses, in respect to the general object of the work just mentioned, and the principles which these cases, when first arranged, were intended to illustrate, some special advantages, which induced me to adopt it: *Firstly*, by presenting several examples of the successful treatment of ordinary pain, as well as of so-called "true neuralgia," by the Neuro-dynamic method I supply a powerful enforcement of the doctrine insisted on in that work—of the essential identity of neuralgia and ordinary pain; and, *Secondly*, while presenting a number of cases of various and essentially different diseases in which pain is, however, a prominent feature, I am enabled to adduce from a variety of sources experimental proofs that that system of neuro-dynamic pathology and therapeutics which I advocate and practise is true, and that the range of its applicability to the human organism is co-extensive with that of disease itself. Moreover, bearing in mind the uncertainty of life, it seems to me desirable that I should now put on record the proofs in ques-

tion ; for if I should be precluded from writing, as I still hope to do, a systematic exposition of the principles and practice of Neuro-dynamic medicine, the following reports, containing as they do an informal exemplification of it, will at least constitute the indestructible foundation of a superstructure, the outlines of which are already traced, and which, if built up by other hands than mine, will assuredly be completed far more speedily than it otherwise would have been if that foundation had not already been laid.

The reports are arranged simply in the order of date at which, in each case, I first saw the patient. In many of the cases the patient presented a considerable assemblage of symptoms, several of which are commonly regarded as distinct diseases, and it would be impossible to designate such cases by any name capable of representing the several, or even the chief, elements of the malady in question. And I venture to remark here, that the more the essential nature of disease in general is truly apprehended, or, in other words, the more that special diseases located in the various parts of the body are regarded as phenomena of disorder in the nervous centres, the more the difficulty of classifying cases according to any really scientific method will be recognised : the highly differentiated and complex human organism is an indivisible unit ; in every part of it the spinal cord, by its countless neural ramifications, is virtually present, and every part is represented in the "true spinal cord." It seems to me, therefore, that the lines of demarcation of any conceivable classification of diseases will be inevitably intersected by the all-pervading branches of the nervous system, and will thus be more or less completely invalidated. In proceeding, as I am now about to do, to present an analytical review of the cases reported in the next Section, I shall advert to their several symptoms, in an order of succession having no claim to a scientific character, but possessing, I think, two advantages : it is simple ; and it will probably facilitate the reader's apprehension of the lesson which those cases are capable of conveying to all who will duly consider them.

Facial Neuralgia.—The Neuro-dynamic treatment of this disorder is exemplified in the cases numbered respectively 11, 16, 18, 21, 23, 24, 26, 29, 30, 34, 40, 56, 60, 61, 63, 67, 69, and 82.

Cases 11, 21, 26, 61, and 82, were treated by the application of heat (warm water in the Spinal Water-bag) along the cilio-spinal region, and certainly nothing could be more satisfactory than the effect produced in Cases 11, 21, and 82. In Case 61 I never saw the patient, and prescribed only by letter, after being supplied with insufficient data for a satisfactory judgment : had the use of cold been combined with that of heat the cure would probably

have been complete. In Case 11 the action of the heat in subduing the swelling and tenderness, and in inducing sleep, as well as annulling the pain which the patient suffered, is strikingly manifest. In Case 82, as in Case 11, there was extreme local hyperæmia : "during the paroxysms the parts could not only be felt, but could be *seen* to throb." Guided by this symptom, I deemed it expedient to treat the case by means of heat rather than by cold, in order that by aid of the former a constringing force might be exerted on the blood vessels supplying the medulla oblongata, and on those of the face at the same time. Case 26 affords remarkable evidence of the action of heat applied to the cilio-spinal region in lowering the temperature of the peripheral part influenced, as well as in subduing the pain : "the patient's previously hot and aching forehead became perceptibly cool and moist ;" she remarked that "the inside of her mouth had become much cooler ;" and "the temperature of her cheeks fell so much that they felt cooler than normal."

Among the cases of facial neuralgia treated by the Spinal Ice-bag there is none affording a more wonderful example of its remedial efficacy than that presented by Case 29 ; and it is to be observed that several of the complicating disorders in this case were of a kind which drugs are powerless to remedy. Case 34 is a notable instance of extremely rapid action of the Spinal Ice-bag in annulling severe pain : *the patient had no neuralgia after the first application of the bag, on which almost every night she fell fast asleep.* And in Case 40 the experience, though not so striking, was essentially similar : *the patient "felt distinct relief while applying the ice, which she felt very agreeable."*

Among the interesting features of Case 56 there is an especially instructive one, viz., the apparent "struggle for existence" of the pain before it was finally subdued. I say this is "an especially instructive feature" because it shows that pain is prone to become a habit—incarnated in the organism, and that when it does so, the use of the Spinal Ice-bag needs to be long persisted in before that habit is thoroughly effaced. On one occasion the patient, after reporting himself "a great deal better," remarked,—"There seems a subdued pain, but as if something was struggling with it to keep it down ;" and subsequently, having stated that he continued free from pain while continuing to use the Spinal Ice-bag, he added,—"but I find that if I don't use it the pain comes back : during three days at Christmas I went without ice altogether, and the pain became dreadful. I find I can go over one day without ice, or two at a push, but I can't extend it to three." In a month after making that remark he was able, however, to go without ice for three months toge her with impunity ; and soon got wholly rid of his tormentor.

Cervico-Occipital Neuralgia is more or less distinctly manifested in Cases 4, 30, 31, 40, and 69; but in each of them it was part of a more general neuralgic habit, and was subdued by means of the Spinal Ice-bag along with the more general affection. Case 31 is an interesting example of intense pain, associated with, and probably caused by powerful and persistent clonic contractions of the trapesius and complexus muscles of the right side. Drugs had long been tried without any avail to stop the malady, and I doubt if any other agent than ice could have exerted a curative power over it.

Brachial Neuralgia.—The cases numbered respectively 20, 24, 25, 27, 28, 29, 40, 76, 80, 94, and 98 afford examples of neuralgia of some part, or of the whole of the upper extremity. Of these cases, Nos. 27, 28, 29, 40, 76, and 80 are the most remarkable, in respect to severity, extent of range, long continuance and complications, and present, therefore, the most striking proofs of the efficacy of the Neuro-dynamic method of treatment.

Intercostal Neuralgia is exemplified in the cases numbered 1, 5, 20, 25, 30, 37, 39, 40, 47, 49, 50, 51, 54, 58, 64, 66, 91, and 97. That form of this disorder, which consists in neuralgia of the female breast, appeared in Cases 1, 5, 40, and 64. *Mammary neuralgia* often proves persistently rebellious to ordinary treatment; but it will be seen that in Case 1 the pain, which had lasted several years, was quickly and permanently subdued by the Neuro-dynamic method, and that in the other cases of the disorder, which, however, was comparatively slight, the cure was equally complete. *Infra-mammary neuralgia* occurs in nearly half of the whole of these cases of intercostal neuralgia, viz., in those numbered 37, 39, 47, 50, 51, 54, 91, and 96. As Dr. Anstie rightly observes, pain beneath the left breast "is one of the commonest of all neuralgic affections;" but I am obliged to dissent from his remark, that women with neuralgic tendencies so often experience this pain "chiefly in consequence of over-suckling, but also from exhaustion caused by menorrhagia or leucorrhœa, and especially from the concurrence of one of the latter affections with excessive lactation" (p. 39). The whole tenour of the pathological exposition already given in my work on "Neuralgia" is opposed to this idea of the causation of the malady; and I need merely remark here, as I have thoroughly proved, that pain beneath the left breast and leucorrhœa are twin results of one common cause—hyperæmia of the spinal cord: in the one case certain of its *sensory*, in the other certain of its *secretory* cells being a seat of the disorder. The question—what, in the majority of cases, is the exciting cause of infra-mammary neuralgia? is a very interesting one, and one which, so far as I know, has never received a satisfactory answer. I adverted to the

subject at page 62 of the work just mentioned, but since doing so it has seemed to me probable that irregularities and tumultuous disorders of the circulation of the blood in the spleen constitute the exciting cause of this pain. As a distinctive malady it occurs exclusively in women in whom the nervous and vascular system are more mobile, more easily disturbed, and more liable to disturbance than they are in men; moreover it occurs chiefly in those women in whom the nervous system is peculiarly susceptible and excitable. If so, this organ in such women is the seat of great and rapid alternations of circulation, and, being often both quickly enlarged and again contracted in correspondence with the changes occurring in the general peripheral circulation, it can scarcely fail to exert an exciting influence on the nervous centres more or less immediately related to it, and thus to induce, by reflex action, pain in its own or in neighbouring regions.

Lumbo-abdominal Neuralgia is represented in Cases 10 and 62. Both cases are remarkable by their complications, and No. 10 by the extreme severity and long duration of the pain. Considered in respect to the seat of pain, they are rightly called cases of lumbo-abdominal neuralgia; but I incline to think that in each case the right ovary was one of the chief foci of disorder.

Hypogastric Neuralgia.—Case 68 exemplifies this disorder in a slight degree; in Case 89 the malady was extremely severe, and had recurred very frequently; the patient had been liable to it during her whole life, and, nevertheless, was completely cured.

Neuralgia of the Lower Extremities occurred in Cases 5, 17, 25, 27, 29, 30, 38, 46, 75, 79, 83, and 91. Cases 16, 30, 38, 40, and 79 were well marked examples of that form of neuralgia generally described as *sciatica;* in Cases 5 and 83 (the latter that of a pregnant woman) the crural nerves were especially affected; in Cases 25, 27, and 46 the feet were the chief seats of pain—Cases 27 and 46 were especially severe, and Case 46 presented some remarkable features deserving especial notice.

General Neuralgia.—In some persons the neuralgic tendency is so pronounced that there is scarcely any part of the body but what becomes in turn a seat of suffering: Cases 12, 25, 29, and 91 are of this kind. The two last cases, in the first of which a complete cure was effected, are deserving of especial attention.

Painful Excitability of the Spinal Cord is exemplified in Cases 43, 60, 69, and 84. Indeed, the difference between this affection and that called general neuralgia is little more than one of degree: the former involves a greater amount of the spinal cord than does the latter, and therefore the phenomena are both more extensive and more various than are those of general neuralgia. The chief characteristics of painful excitability of the spinal cord, or "spinal irritation," as it is commonly called, are excessive

tenderness and liability to pain of the whole spine, associated with an extraordinary proneness not only to neuralgia, but also to the development of morbid phenomena of the voluntary and involuntary muscles, of the glandular system, and of textural nutrition.

Back-ache, or Lumbago, is one of the most common of the painful affections from which human beings suffer, and one which drugs are almost powerless to relieve. Aching along some part of the spine often accompanies each of the numerous forms of neuralgia; and the most common kind of back-ache—that located in the lumbar, and in the lower dorsal segments, is almost always associated with disorders of the female pelvic viscera. Indeed, this affection is so common, and so rebellious to ordinary medical treatment, that, as a general rule, women submit to it as an inscrutable and inevitable "dispensation of Providence" which it behoves them to bear in silence. But, just as the magic potency of chloroform is dispersing the superstition that the pains of childbirth are among the unavoidable effects of the "primæval curse," so the power of ice will annul the belief that the pains in question, which indeed are also mainly connected with disorders of the reproductive organs, defy the power of medical art. In fact, they form a part of that group of maladies which are now most curable. The truth of this statement is rendered indubitable by the experience recorded in the reports of the cases numbered 1, 5, 15, 23, 25, 42, 43, 45, 47, 51, 52, 53, 54, 60, 62, 64, 65, 71, and 91.

Headache was experienced in Cases 1, 3, 5, 7, 13, 15, 20, 21, 23, 24, 25, 28, 29, 31, 33, 35, 36, 39, 42, 44, 45, 47, 49, 50, 54, 57, 60, 62, 63, 64, 65, 66, 68, 69, 80, 96, and 98. It thus appears that of the following cases—100 in all—37 were cases in which headache was a more or less prominent symptom. In 36 of these cases the headache was completely cured; and even in the remaining one, namely, Case 69, decided improvement was experienced. The cure of such a proportion *of such cases* is a result the achievement of which would have been impossible except by the Neuro-dynamic method. I say "of such cases," because many of them had been of long duration, many of them were extremely severe, and many of them presented both these features. In Case 1 the patient had suffered "almost constantly;" in Case 3, the patient "had headache all day every day;" in Case 5, headache "lasted nearly half the day about four days out of seven;" in Case 7, "terrible headaches nearly every day and nearly all day long" were complained of; in Case 24, the patient "was a great and habitual sufferer from headache, from which she was scarcely ever free;" in Case 25, headache "came on each morning;" in Case 28, "great pain in the head,

with frequent giddiness" had been suffered "almost every day for some hours upwards of a month, and both the pain and the giddiness were increasing;" in Case 29, the patient had long been a sufferer from "acute throbbing headache;" in Case 31, there was "severe and persistent headache;" in Case 42, the patient suffered from "very severe headache, continuing all day two or three days a week, and was very giddy;" in Case 50, the patient's chief trouble was headache "almost daily." In Case 54, the patient had been subject to headache "as long as she could remember: it recurred generally every day." In Case 57 the patient "had suffered during five years from attacks of extreme headache, which came on several times a week, which generally lasted ten or twelve hours, and which almost incapacitated the patient from doing anything;" in Case 60, there was excessive pain at the back and base of the brain, and also this remarkable feature, viz., that when absent, the pain was induced not only by any ordinary noise, but even by the laughing or singing of the patient herself; in Case 63, the patient had suffered chiefly at night from "horribly severe" and increasing pain in the head during five or six months; in Case 64, the patient, who often felt giddy, said, "I suffer to stupefaction in the back part of my head;" in Case 66, the patient "suffered every day from a sense of pressure and great pain at the top of the head; in Case 89, the patient suffered from "an almost constant and peculiar headache, a feeling as if her head would burst;" in Case 96, the boy had suffered very frequently from pain across the back and base of his head for several years, in fact, as long as he could remember; and finally, in Case 96, the patient had had very severe frontal headache about four times a week during many months.

Chest-ache.—Cases 47 and 49 are examples of this common affection which, as in these two cases, is often associated causatively with suppression or insufficiency of the menstrual function, and which, as I have said at page 72, is not infrequently the initial stage of phthisis. In Case 47, the pain in the chest was accompanied, as it frequently is in such cases, by pain along the upper part of the dorsal spine; and the menses had been suppressed during four months. In this case the suppression was, doubtless, the cause of the chest-ache; but in Case 49, the chest-ache, though occurring in a woman whose menses had been so scanty during the preceding five months that they were "only a mere show," was not due, I apprehend, to the menstrual deficiency, but to a general disorder of the nervous system, of which that deficiency and the chest-ache, as well as the head-ache, retching, vomiting, constipation of the bowels, and coldness of the feet were a common expression. As will be seen by reference to each of these cases, not only the chest-ache, but all the ac-

companying maladies, vanished when, by the Neuro-dynamic method, their immediate cause, the morbid state of the spinal and sympathetic nervous centres, was removed.

Gastralgia.—Cases 88, 93, 95, and 96 exemplify this disorder in very striking forms, and probably none of the hundred cases here given demonstrate more impressively than these do the wonderful power of the Spinal Ice-bag as a remedial agent. In Case 88, the patient had been suffering with terrible frequency during two months from dull, heavy, gnawing, deep-seated pain in the stomach, followed by vomiting, and had been liable all his life to this malady, which had often completely disabled him; in Case 93, the patient had been afflicted in a similar manner every day during six months; in Case 95, attacks of pain and vomiting, lasting generally from six to eight hours, occurred at intervals, varying in length from a day to a week, during upwards of two years; in Case 96, the patient's paroxysms of "agony in the stomach," as his mother called them, lasted several hours each time, recurred not less and often more frequently than once a week, had continued many years, and were becoming increasingly severe. Nevertheless, in each of these terrible cases, after medical art as ordinarily practised had proved of no avail, a complete cure was effected by the Neuro-dynamic method.

Enteralgia.—Severe forms of this malady are presented in Cases 86, 87, 88, and 90. In Cases 86 and 90 the pain was associated with diarrhœa, and had continued in the latter case about a month, in the former upwards of three months. In Case 87 the pain was accompanied by vomiting and constipation, and had continued about a year; and in Case 89, the patient, who was aged sixteen when she was brought to me, had suffered severely in the manner described "almost from her birth." In each case the pain, as well as the other symptoms complained of, was completely and permanently abolished.

Nephralgia.—The affection generally designated nephralgia, viz., the very severe pain incident to the passage of renal calculi from the kidneys into the bladder, is exemplified in Case 81A. In this case the agonizing pain was wonderfully subdued by the Spinal Ice-bag. Case 92 shows how rapidly pain in the kidneys themselves may be subdued by the application of ice. In this case the pain was, I apprehend, a consequence of nephritis.

Neuralgia of the Testicle.—In Case 70 the pain had been induced about two years before I saw the patient by lifting a heavy weight; in Case 81, it seemed to have originated spontaneously in an otherwise "nervous" patient; but in both cases the disease was thoroughly and permanently annulled in one and the same way—the exertion of a sedative influence over the dorso-lumbar segments of the spinal cord.

Ovarian Neuralgia is presented in Cases 1, 42, and 64, possibly also in Cases 10 and 62, which have already been referred to under the name of "lumbo-abdominal neuralgia." In Case 1, the pain had been of long continuance, and "was increasingly acute immediately before the recurrence of the menses." In Case 42, the pain, which was in the left ovary, was brought on at any time by walking, and in this respect exhibited an interesting likeness to the cases of neuralgia of the testicle already mentioned. In Case 64, the patient had suffered from neuralgia of the left ovary during eight months. It is worthy of notice that both in this case and in Case 1 there was mammary as well as ovarian neuralgia; in Case 1 the left ovary and right mamma were the seats of pain; but in Case 64, the pain both of the ovary and of the mamma was on the same side. Considering the intimate functional relationship between the mammæ and ovaria, we easily understand how likely they are to become morbidly affected simultaneously. I have only to add that in each of these cases the ovarian neuralgia was completely cured by the Neuro-dynamic treatment.

Uterine neuralgia.—The cases of this disorder are extremely numerous, and are numbered respectively—1, 3, 6, 7, 9, 13, 22, 25, 29, 54, 58, 59, 60, 64, 66, 69, 80, 97. In Case 1, the menses were accompanied by "fearful cutting pain;" in Case 3, there was a "dragging pain" in the pelvis, and "a sort of cutting pain in the womb;" in Case 6, the patient suffered extremely during at least two days immediately before, and during the whole of each menstrual period—her mother said, "she is doubled up with pain;" in Case 7, the patient suffered intense uterine pain "of a cutting or griping kind," together with back-ache before and during the whole of her menstrual periods: she could not stand, she said, because the pain was so dreadful; in Case 9, "pinching, drawing pain" was experienced during the whole period of menstruation, and generally during one or two days previously. In Case 13, the pain came on with such terrific severity that she was obliged, she said, "to dance about the room." This "agony" usually lasted about five hours, and subsided temporarily when the flow began, but soon recurred, though with less intensity, the flow stopping meanwhile; in this manner the pain and flow alternated with each other during about five days. In Case 22, the patient suffered extreme dysmenorrhœal pain during the whole period of menstruation; in Case 25, the menses stopped in the day time, and meanwhile there was great pain in the womb and at the bottom of the back; in Case 29, menstruation was "excessively painful;" in Case 54, the patient, aged twenty, had always suffered since she was thirteen years old from dysmenorrhœa with great pain; in Case 59, the patient "suffered fearfully:

throughout the first day she was in one continuous agony, which kept her—to use her mother's expressive phrase—'rolled up in a ball.' The second and third days she suffered less, and could move about. Her mother said, 'the pain is so severe, that though she is not given to crying, she is constrained to cry.'" In Case 60, the catamenia were preluded during about a week by pain in the womb; in Case 64, there was extremely severe menstrual pain, lasting about forty-eight hours; in Case 66, the patient had great pain in the womb at her periods, and had suffered thus during many years; in Case 68, the patient suffered intense pain at her periods; in Case 69, the patient had excessively severe pain in the womb at her periods, lasting two or three days; in Case 80, great pain in the back, womb, and thighs, "in fact, all round," was experienced during two or three days at each period; in Case 97, the patient had intense pain in the lumbar and hypogastric regions during the whole of the first day of her menstrual periods, when she generally felt sick and often vomited.

Of these cases, 18 in number, there were 14 in which the uterine neuralgia was thoroughly cured, and in the 4 remaining cases a remarkable improvement was effected; indeed, had the treatment been persisted in, they also would probably have been cured. But be this as it may, everyone acquainted with the disease in question knows that the cure of 14 out of 18 cases of it, and a decided amelioration of the remainder, is an achievement without parallel in the history of medicine. And all who reflect how terribly prevalent uterine neuralgia is, and how powerless drugs are to relieve it, will be of opinion, I believe, that if Neuro-dynamic Medicine were available for the cure of this disease only, its introduction would be a priceless blessing to humanity.

Hyperæsthesiæ.—Six peculiarly interesting and instructive examples of these affections will be found among the following cases, viz., those numbered respectively 65, 65A, 70A, 70B, 73, and 94. The third and fourth were cases of small-pox. The rapidity with which the previously intolerable itching of the pustules subsided while the Spinal Ice-bag was being applied was scarcely less wonderful than it was delightful to the patients. Cases 65 and 65A represent the development and treatment in the same patient on two successive occasions of a kind of *erythema nodosa*, the irritation of which was extreme. On the occurrence of this affection the second time, Dr. Liveing, who is devoting special attention to skin diseases, was kind enough, at my request, to watch the case with me. The speed and completeness with which the disorder was put an end to was only less satisfactory than was the stoppage of the irritation in the cases of small-pox, because the disorder was less important. Case 73 interested me in a most

especial manner: it was a very remarkable instance of the production of a peripheral disorder by reflex influence from the nervous centre implicated, after the exciting cause—a wound in the wrist—had completely healed; but to me it was still more remarkable on account of the peculiar condition induced in the surface of the palms of the hands—a condition which before I had neither seen nor read of. That condition, consisting of a peculiar smoothness, glossiness, redness, and burning irritation of the surface, I assured myself on the first examination to be wholly of nervous origin, and to have been produced as a sequela of an accident consisting of the cutting the wrist by the broken glass. Some months afterwards, when in the library of the College of Surgeons, I got hold of an exceedingly instructive and interesting book which I had long wished to see, but which, being out of print, I had not obtained, viz., the work of Messrs. Mitchell, Morehouse, and Keen, recording their observations during the recent American War, and entitled, "Gunshot Wounds and other Injuries to the Nervous System," and was surprised and delighted to find my diagnosis thoroughly confirmed by the experience of those careful observers, who have recorded many cases in which injuries of nerves by gunshot wounds produced a precisely similar phenomenon. If, happily, those authors had known of the wonderful efficacy of the Spinal Ice-bag in such cases the unfortunate soldiers who suffered in the particular manner in question might have been saved from their misery.* In Case 94 the irritation was accompanied by an eruption different from the others just mentioned, but it was also abolished with astonishing rapidity. Indeed, it seems from these experiences as if cutaneous irritation generally may be allayed by one and the same method of exciting the sedative influence of cold over the spinal cord.

Cerebro-spinal Fever is exemplified in a very pronounced form in Case 14, and, as it seems to me, quite distinctly in Cases 35 and 36. In a series of papers published in the *Medical Press and Circular* when this grave malady was prevalent in Dublin, I expressed myself fully concerning its pathology and treatment, and gave reasons for believing that the most successful treatment of it would consist in the prolonged application of ice across the occiput and along the spine. Case 14, which I had already treated in that way, gave an encouraging assurance that my expectation

* Dr. Anstie points out (p. 17) "that these skin lesions correspond very nearly, not only to those observed in the cases of nerve injury reported by Mr. Paget, in which, actually, neuralgia was present (though the kind of pain is not exactly specified), but also very nearly with the nutritive changes observed by Mr. Jonathan Hutchinson in a number of cases of surgical injuries of nerves."

was well founded, and this assurance was greatly strengthened by Professor Morgan's experience in a case reported by him in the *Medical Press and Circular* for Sept. 11, 1867. That case is at once so remarkable, so confirmatory of the views expressed in the papers just mentioned, and presents from an independent and impartial witness evidence so indisputable of the action of the Spinal Ice-bag, not only on the nervous centres, but through them on the peripheral circulation, that I am tempted to quote Professor Morgan's report of the case here in his own words.

"The following case I conceive of interest, as it tends to show the value of the Spinal Ice-bag of Dr. Chapman in the treatment of cerebro-spinal inflammation:—

"A lithe and, hitherto, active boy, æt. nine, was admitted at 4.30 a.m., Aug. 27th, 1867, to Mercer's Hospital. His parents state that he was a little ailing the evening previous on going to bed, and shortly after became restless and rambling, picking at the clothes, and in fits as they describe. The symptoms so increased in intensity that early in the morning he was brought to hospital. The raving was now incessant, but he was capable of obeying when repeatedly desired, putting out the tongue rapidly, and with a jerk of the muscles; face rather flushed; head retracted; sterno-mastoid muscles tense; no dysphagia; muscles of trunk and extremities moderately rigid, but becoming more so on slight pressure, though not by pressure over spine; surface warm; and on examination a curious blush was distinct over the lower half of body, having the appearance of a capillary excitement of the skin, and not of a rash. Pupils enormously dilated, and quite insensible; there was one attempt at vomiting; belly slightly tumid; pulse, 120; tongue clean and moist. An Ice-bag not being at hand, cold effusion was used over the head and occiput, with rather tranquilising effect; turpentine with fœtid tincture administered; and hydrarg. c. creta, gr. ij.; pulv. jalapa. c., gr. xij., every two hours; turpentine stupe to the belly.

"*Eleven o'clock.*—There is now more distinct tendency to spasmodic action of the muscles of a tonic nature, the pupils being observed distinctly to dilate more at the approach of a spasm; three suspicious purpuric spots on one, and two on the other arm are now seen; a large-sized Ice-bag was now charged with ice and salt, and applied along the spine from occiput to lumbar region; the immediate effect was contraction of the pupils, though not to their normal size; diminution of the spasm and restlessness, and, what was remarkable, of the blush over lower limbs; belly is rather tumid; Ice-bag to be refilled at two hours' interval.

"*Evening visit.*—Tension of muscles rather less; pulse 108; blush of lower limbs disappeared; bowels but once freed; ordered olei crotonis gtt. ss., calomel gr. iv., continue Ice-bag at two hours' interval.

"*August 28th., nine a.m.*—Slept none; delirium and restlessness constant; the arms at times rigidly stretched out; twitchings of muscles of face, which is now rather pale; pulse 100, weaker; tongue moist; pupils still dilated; muscles not so tense, and certainly relieved on each refilling of the Ice-bag; the belly still rather tumid, bowels once moved; calomel and croton oil to be repeated, and followed by sulphatis quinæ, gr. v., every three hours; iced beef-tea to be freely given; continue the Ice-bag without intermission.

"*Evening visit.*—Rigidity of muscles yielding; pupils slightly contracting, can obey directions; bowels once moved; slept once in the afternoon; pulse 100; tongue clean; herpes of upper lip now appearing; continue the quinine and beef-tea and Ice-bag at three hours' interval.

"*Half-past nine a.m., August 29th.*—Decidedly better; consciousness returning; pupils contracting; can recognise faces and answer questions; rigidity relaxing; can bend the head forward so as to touch chest with chin; has slept five hours; herpes about the size of threepenny piece. To continue quinine and beef-tea, which latter he takes freely; the Ice-bag continued at four hours' interval.

"*Evening visit, August 29th.*—Improvement so manifest that the Ice-bag is dispensed with. Quinine and beef-tea continued for the present.

"*September 1st.*—The boy is allowed home, and to attend the dispensary. The service of the Ice-bag in this case was a diminution of the excitement and delirium, and the effect on the pupils was very remarkable, the contraction occurring within a few minutes after its application. It might be supposed that the continued application of so large a bag of ice would have caused some local mischief, but such did not appear; allowance was made for some difficulty in keeping the bag applied, owing to the patient's condition."*

At the close of his report Professor Morgan gives an account of "the conditions under which the attack came on" in six cases which came under his care: of these six cases, the only one which did not prove fatal was the only one which was treated by means of the Spinal Ice-bag; and he observes,—"This one has been saved, as I believe, by the use of the Ice-bag, in combination with the free exhibition of quinine and support."

Cramps and other Disorders of Voluntary Muscles.—That very common and very painful affection, cramp of the muscles of the lower extremities, is, so far as I am aware, incurable by any known drug; but whether it be of that kind which attacks otherwise healthy persons, and which comes on only at night—not seldom as an habitual visitant, or whether it occurs only as an accompaniment of other diseases, severe diarrhœa, for example, it is easily and completely subdued by the Spinal Ice-bag. Cases 4, 5, and 40 are good examples of the former, and Case 96 of the latter. I may add here that the "Cases of Diarrhœa and Cholera" which I have published present a considerable body of evidence to the same effect. Moreover, and the fact is of capital importance, cramps are not only subdued by this method of treatment, but their tendency to recur is abolished: in numerous cases which have come under my observation, persons who have suffered for years from cramps coming on in the night have been completely and *permanently* relieved from them by means of ice; indeed, Cases 4 and 96 confirm the truth of this remark.

Spasmodic contraction of voluntary muscles of that gradual and gentle kind which does not amount to cramp producing severe pain, but which disables the patient, is exemplified in

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* "The Spinal Ice-bag in Cerebro-spinal Inflammation." By John Morgan, F.R.C.S.I., Professor of Descriptive Anatomy to the Royal College of Surgeons of Ireland. *Medical Press and Circular*, September 11, 1867.

Case 5. Two other cases of this kind, but in which the disorder was more pronounced, have come before me: in one of these cases the patient was a sempstress, who, owing to the involuntary and tonic contractions of the flexor muscles of both hands, was incapable of continuing her work; in the other the patient, who is an eminent pianist, was affected in like manner, and so severely that he was disabled from playing; and in both these cases, as in Case 5 just referred to, a rapid and permanent cure was effected.

Another form of muscular contractions is that exemplified in Cases 4 and 32, viz., that of clonic but continuously recurring spasms; in the one case the muscles of the lower jaw were affected, in the other, in which there was great suffering, those of the neck were the seat of the disease. In this last case the patient had been, during a considerable time, under the care of one of the most eminent neuro-pathologists in London without deriving any substantial benefit.

There is still another and a very distressing kind of involuntary contraction of voluntary muscles, which, indeed, is on the borderland of epilepsy, and which may be referred to here because it is exemplified in Cases 7 and 12. I mean those violent *jerks* or *starts* with which some patients are troubled, and which in some cases, as in Case 7, are so violent as to throw the patient down.

In each of these cases a cure was effected by the Neuro-dynamic method.

Epilepsy: le grand et le petit mal.—As I have had considerable experience of the remarkable efficacy of the Neuro-dynamic method in the treatment of epilepsy, I intend to publish a separate treatise on the subject; meanwhile, as the disease appears in Cases 1, 6, 7, 9, and 96, especial attention is invited to those cases. Case 6 was one of very severe epilepsy (*le grand mal*), which had continued from childhood, and which manifested itself most terribly at the patient's catamenial periods. She was under treatment only four months; nevertheless, the fits gradually became less in number, much shorter, and less severe, and at her third catamenial period after the treatment began the patient, for the first time in her life, menstruated without having a single fit. In Case 9 the patient had attacks of *le grand mal*, generally about three fits a month, and always at her catamenial periods. While under treatment she menstruated on three successive occasions without having a fit—a fact surely very significant and important, although she was not cured of her malady. In Case 96, which was one of extremely severe *petit mal*—the attacks being not only frequent, but more prolonged than in any other case of *petit mal* I ever met with—the improvement effected was so great and striking, and was accomplished in so short a time, as to justify the convic-

tion that the patient would have been completely cured if only his poor, struggling parents could have borne the expense of the ice two or three months longer. In Case 1 of *petit mal* occurring every day, and in Case 7 of both *petit et grand mal*—a very severe case—a complete cure was effected.

Fainting Fits, or cases of anæmia (more correctly *hypæmia*) of the brain resulting in loss of consciousness more or less complete, are, in respect to their essential nature, nearly akin to epilepsy; nevertheless, there is a difference which justifies the distinctive name by which they are commonly designated. In the case of severe brachial neuralgia numbered 76, fainting fits were a prominent complication, and were generally induced by the agonising pain which the patient suffered. She began to be afflicted with them between two and three years before she first consulted me; and since they first came on they had usually recurred several times a week, but occasionally two or three times a day. My treatment of her began May 25th, and was continued uninterruptedly until June 16th, when it ceased because she was "unable to get ice," and was not resumed until June 22nd. During the continuance of the treatment she was quite free from fits; but June 18, while she was without ice, "she became very ill and fainted away with pain;" and, again, June 21st, "she fainted twice from the same cause, and lost her consciousness completely." On June 23rd the treatment was recommenced, and since that date the patient has never had a fit. I may add that I have been consulted in several cases of fainting fits, and that the Neuro-dynamic treatment of them has been attended with one uniform result,—their rapid and complete abolition. In respect to this malady Dr. Wm. Playfair has verified my experience, and has kindly given me the report of a case in which he also effected a cure by the use of the Spinal Ice-bag. In a recent case of this kind to which I was called (April 26th, 1872) in consultation with the ordinary medical attendant of the patient, she was then having frequent and prolonged fits almost daily; but from the day the treatment which I advised was begun until June 10th, when I last saw her, she had not had a single fit, and was wonderfully improved in several other important respects.

Tinnitus aurium (singing in the ears).—This obscure affection, which occurred in Case 1, and which was a constant trouble to the patient, was completely cured along with the other disorders, including *le petit mal*, from which she suffered. In several other cases a cure has been effected by the Neuro-dynamic method; but recently a case of this kind under my care proved incontrollable. I call the disorder "obscure" because we seem unable as yet to ascertain what is the precise mode of production of the subjec-

tive sounds in question. I have assured myself that the proximate cause of them in the majority of cases is *hypæmia*; but in some cases they seem to be due to an opposite condition of the cerebral circulation, and thus, *in this respect*, are probably analogous to sleep, which may be produced as a consequence of both hypæmia and hyperæmia of the brain. In those cases which are incurable by the Neuro-dynamic method, by which the cerebral circulation may have been increased or lessened in accordance with the symptomatic indications, a permanent change, of the kind usually called structural, has probably occurred in the nervous centres functionally related to the auditory apparatus, or an exciting cause of the morbid phenomenon in question continues to operate, and may be irremoveable—indeed, most likely, undiscoverable.

Subjective Spectra.—Just as there are subjective sounds and, I may add, subjective smells, so there are subjective spectra, which, indeed, are experienced quite as often, perhaps, as subjective sounds, and certainly much oftener than subjective smells. Case 4 affords an interesting example of this kind: the patient was much afflicted in the night by the vision of a very bright light—"brighter than any bude-light I ever saw," she said, and, simultaneously, with an "inexplicable feeling of thorough terror and distress, which frequently compelled her to get out of bed and pray to be relieved of it." These morbid experiences, as well as several others which accompanied them, were completely put an end to by the treatment adopted.

Giddiness occurred in Cases 28, 45, 53, 64, 75, and 100. In Case 28, the patient had been troubled with frequent giddiness, along with great pain in the head, almost every day during some hours for upwards of a month. She was first submitted to treatment in the middle of January, 1868, and in the middle of the following April had become quite well. In Case 45 there was frequent giddiness, which rapidly lessened under the influence of the Spinal Ice-bag. Unfortunately, I did not see the patient after I last prescribed for her, and am therefore unable to report the final effects of the treatment in her case. In Case 53 the patient suffered from great giddiness, which often caused her to reel. She said, "After sleeping I wake up so dreadfully giddy." Her giddiness was associated with pain in the head. At the end of two months from the time when her treatment began, the trouble in question had ceased entirely. In Case 64 giddiness was a frequently recurring symptom, which was associated with pain in the back of the head, and which, under treatment, subsided along with it. In Case 100 the giddiness was an accompaniment of sciatica, and the two were cured simultaneously.

Sleeplessness and its successful treatment are exemplified in

Cases 10, 13, 48, 61, 63, 74, and 75. Of course, in the majority of cases sleeplessness has an obvious cause—severe pain, for example ; and in such cases sleep is at once procured when its preventitive is removed. In Case 10 the patient was greatly enfeebled by the want of sleep, such sleep as she had being procured only by means of narcotics. She was kept awake by terrific pain. In Case 13 the patient's sleep "was generally broken and unrefreshing" because her nervous system was generally disordered. In Case 48 the patient was in constant pain during the night so that, as she said, she only dozed a little when overpowered with exhaustion. In Case 61 neuralgic attacks, usually lasting from 10 p.m. till 3 a.m., precluded the possibility of sleep. In Case 63 the pain was so horribly severe at night that the patient often walked about the room, being unable to rest in bed. She said, "I get about a quarter of an hour's sleep, and then lie awake all night." In Case 74 the patient was kept awake half the night by "burning heats," followed by coldness. In Case 75 sleep was prevented by intense pain in the head and sudden and extreme flushing, followed by profuse perspiration. In Case 76 the patient said, "If I had my choice I'd rather go through my labour pains than bear what I have to suffer of a night." She often sat up a considerable part of the night from fear of the pain coming on. And finally, in Case 67, during a period of about three years immediately before the patient consulted me she suffered so severely at night that, as a rule, she was dependent for what sleep she had on alcohol, opium, morphia, chloroform, or hydrate of chloral.

That neuralgia is prone to be much more severe during the night than during the day is a recognised fact—a fact which I have, elsewhere, endeavoured to explain.* The physiological condition of the nervous centres which I have shown to be the proximate cause of this tendency is one which is peculiarlycapable of removal by the Neuro-dynamic method of treatment and by no other; and hence it is that Neuro-dynamic medicine possesses sleep-giving power in a pre-eminent degree. It is to be expected that inasmuch as all the cases here reported are characterised by the presence of pain as a prominent symptom, the sleeplessness notable in several of these cases would be due to the increasingly-severe pain at night, and that its cure was effected by abolishing that pain. I must add, however, that in cases which have come under my care, of insomnolence unaccompanied, and therefore not caused, by pain, the sleep-giving power in question is not less strikingly manifested ; indeed, even in cases in which that symptom is not a prominent feature of the malady under treatment, and in which pain is not experienced, refreshing sleep is often

* See my work on "Neuralgia," p. 171, *et seq.*

induced incidentally by the Neuro-dynamic method. Numerous proofs of the truth of this statement are given in the work just mentioned.*

Talking during Sleep.—In Case 5 the patient habitually talked "nonsense" in her sleep; and in Case 96, even when the patient, a boy, was quite free from his gastric and enteric troubles "he often talked in a rambling manner as if delirious" during sleep. In both cases the disorder was rapidly and completely cured by means of the Spinal Ice-bag.

Tendencies to Insanity were observable in Cases 29, 34, and 75. In Case 29 the patient's mind had become seriously impaired; she experienced great mental confusion and loss of memory. She was in the habit of sitting for hours without speaking to any one. When her attacks of headache and neuralgia came on she was seized with an irresistible feeling of dislike of her husband and children, and wished them away from her. In Case 34 the neuralgia was usually associated with headache, more or less general, confusion of ideas, mental apathy and depression. In Case 75 there was melancholy and a tendency to suicide. In each of these cases a complete cure was effected. The cerebral disturbances here indicated were comparatively slight; but experience has proved that in graver cases great benefit can be conferred. In one case under my care in which the patient had been haunted during several years by fixed and delusive ideas, a complete cure was effected by the Neuro-dynamic method. In another case the patient was so grievously afflicted that his relatives felt the gravest apprehensions concerning him: he became disqualified from continuing his usual work; he shrank with terror from seeing visitors, whose approach often made him tremble and break out suddenly in perspiration; he suffered from attacks of great depression or melancholia; sometimes he was wildly excited; and not unfrequently it was necessary that he should be carefully watched lest he should harm himself. In this case a complete cure was effected by the Neuro-dynamic method; and if at any time subsequently he over-worked himself, as he was apt to do, and had a relapse, he was again rapidly restored by the same method. I may add here that in a case of incipient insanity, under the care of Dr. Brereton, of Sydney, he treated the disease, as he informed me, successfully by means of the Spinal Ice-bag; that the late Dr. O'Ferrall, of Dublin, gave me an account of a case of acute mania, suddenly developed in a patient in St. Vincent's Hospital, and which was rapidly subdued in the same way; that a lady suffering from "hysterical mania" was restored to sanity during the first day of treatment by the Spinal Ice-bag,

* See my work on "Neuralgia," p. 289, *et seq.*

which was prescribed by that eminent physician—the late Dr. Symonds, of Bristol; that Dr. Allbutt, of Leeds, has found the Spinal Ice-bag "strikingly successful in maniacal conditions;" and that at the Asylum at Ticehurst, in certain cases of insanity associated with cerebral hyperæmia, heat applied by means of the Spinal water-bag has been found to exert a powerfully beneficial influence.

Impairment of Memory was a distinctive feature of Cases 29 and 76. The patient, in Case 29, said,—"I can scarcely recollect anything: I've often given people wrong change at the counter" (she kept a small shop). This was the state of her memory January 25, 1868, when I began to treat her; and already, in the middle of the following May, her memory was so much improved that she said,—"I can recollect anything now." In Case 76 the patient, when I first saw her, in May, 1871, complained especially of her loss of memory; but in the following July, while still under treatment, she volunteered the remark that her memory was improved. This satisfactory result in these cases was undoubtedly due to the establishment of a regular and equable circulation of blood in the brain by the sedative action of the Spinal Ice-bag, chiefly on those nervous centres which control the cerebral circulation, but partly also by the like action on the spinal cord, many of the fibres of which are directly continuous with those of the brain itself.

Impairment of Sight was a prominent symptom in Cases 3, 4, 7, 27, 29, and 57. In Case 3 the sight before treatment was so feeble and dim that the patient, aged thirty-five, could not tell the time by the church clock, which was close to her house; and one object often appeared to her, she said, as several: after the treatment had continued eighteen days the patient declared that her vision had become quite clear and normal. In Case 4 the patient, who complained that her sight was often dim, found that it had become "much clearer" after she had applied the Spinal Ice-bag as directed during only one week. In Case 7 the patient could not distinguish objects or recognise persons at a moderate distance from her. If she read, her eyes became suffused with tears, and on dark or dull days she could scarcely read at all. Both her pupils were remarkably large, and contracted very slightly in the presence of light. She complained that her eyes were gradually getting worse. With the right eye she could only read test type (Snellen's) No. $3\frac{1}{2}$, and with the left No. $2\frac{1}{2}$. This was the condition of her eyes August 7th, 1863, when I began to treat her. By September 24th the troublesome lachrymation had quite ceased, the pupils had contracted to their normal size, the eyes felt much stronger, and the patient could see distant objects much more clearly than formerly. In the latter part of October,

when the patient was dismissed from the hospital cured of all her grave maladies, her pupils continued normally contractile, and her visual power had so improved that she could read test type $1\frac{1}{2}$ with each eye. In Case 27 the patient, who was fifty-six years old, was unable, when I first saw him, to read smaller test type than $5\frac{1}{2}$ with either eye; after treatment, during only three weeks, he could read test type $4\frac{1}{2}$ easily and $3\frac{1}{2}$ with difficulty. In Case 29 the patient, who complained that during the onset of her neuralgic paroxysms the sight of both her eyes became dim, reported that one of the results of the treatment which she underwent was a great improvement of her visual power. But of the six cases here given, in which vision was improved by the Neuro-dynamic method, that numbered 57 is incomparably the most remarkable. During full five years the patient had suffered from temporary and frequently-recurring blindness, which was rapidly, completely, and permanently cured by that method—heat being the agent employed. Mr. Ernest Hart has published an account of a Case of Amaurosis, in which a wonderful improvement was effected by the Spinal Ice-bag; and one of my patients who was suffering from Diabetes, and who was cured by the Neuro-dynamic method, found his visual power so much increased, quite incidentally, that he wrote to me,—"But the most wonderful thing is that, whereas during the last thirty years I have been in the habit of wearing spectacles, my sight is now so improved that I never use them, unless there happens to be a dull light."

Numbness, or Impairment of Sensibility, was experienced in a marked degree in Cases 27, 28, and 76. In Case 27, the numbness of both hands, when the patient came to me, was such that he could not feel the two points of the æsthesiometer in his right palm until they were eight lines apart, and not until they were twelve lines apart in the left. He was treated exclusively by the Neuro-dynamic method, and in nine days his sensitiveness had so improved that he had become able to feel two points at four lines apart in the right palm, and at three lines apart in the left. In Cases 28 and 76, the numbness was greatly heightened at the beginning of the neuralgic paroxysms. In Cases 27 and 28, normal sensitiveness was completely restored. In Case 76—a very severe one—the patient found it very difficult to supply herself with ice, and her experience affords an instructive example of the alternate decrease and increase of the numbness in correspondence with her use or disuse of the Spinal Ice-bag.

Partial Paralysis is exemplified in Cases 27, 29, 30, 40, and 76. In Case 27, the upper extremities were chiefly affected, and the patient's fingers had become so weak that he was disabled from continuing his usual work, that of making the tops of Broadwood's grand pianos, an employment which involves the

exertion of great force by the fingers in the scraping of the wood. When he had been under treatment three weeks, his hand, and especially his fingers, had become much stronger : he could already scrape the wood far more effectively than he had been able to do for many months previously, and at length his hands became thoroughly strong again. In Case 29, the paralytic symptom, associated with the numbness which was present, consisted chiefly in a feeling of heaviness of the lower extremities—the right being most affected. In Case 30, the patient suffered in a very similar way, so that he was sometimes unsteady in walking, especially when going down-stairs. In both these cases the patients re-acquired normal strength in the affected limbs. In Case 40—a case of brachial neuralgia—the right arm and hand became " partially paralysed at times :" after she had been under treatment a month, she reported that they had become decidedly stronger. In Case 76, the attacks of brachial neuralgia from which she suffered were accompanied with paralysis : the patient said,—" The arm seems to be immediately paralysed ;" if she had anything in her hand she was obliged to drop it, unless it were taken from her. She was obliged to give up her ordinary domestic duties, and, for many months before she came to me, she had been unable to dress herself. At the end of two months of treatment, in reply to my inquiry what evidence she could give me of improvement in her arms, she said,—" Why, being able to use them : I can now dress myself easily, and can use my needle."

That the efficacy of the Dynamic method of treating paralysis is remarkably great is attested by the reports of several striking cases published by me in the *Medical Press and Circular* for May 1st, 8th, and 29th, 1867, and by the confirmatory experiences of several physicians, among whom I may especially mention Dr. J. H. Benson and Dr. Hewitt, of Dublin, and Dr. Townsend, junr., of Cork.

Disorders of Local Nutrition (*Trophic Phenomena : Swelling and Tenderness*).—These disorders are among the most generally recognised and characteristic complications of neuralgia, and have often, therefore, been adverted to in the preceding pages. Swelling and tenderness of the scalp are exemplified in Cases 11, 29, and 92. In Case 11, the neuralgic attack, with its accompaniments, was of recent origin, and as an example of the rapidity with which, in such a case, the phenomena in question, as well as the pain, may be subdued by the proper application of heat, it is especially instructive. In Case 29, the swelling, which was most notable in the forehead, was accompanied by a sense of " burning heat," which, along with the pain, often invaded the roof of the mouth. In Case 92 the tenderness of the scalp was very pronounced.

The face was accustomed to swell during the attacks in Cases 56 and 82; in the latter case the focus of pain was not only swollen, but became very red, and could be seen as well as felt to throb. In this case heat to the cilio-spinal region acted like a charm.

Swelling of the back of the neck, expressive of reflex action through trophic nerves morbidly excited by sensory nerves distributed to the wrist which had been wounded, is notable in the remarkable case, No. 73, to which I have already called special attention. In Case 28 there was also some swelling and tender ness in the cervical region, which were completely subdued by the treatment adopted.

Diminution of swelling of the hands by the Neuro-dynamic method is exemplified in Cases 14, 18, 28, 35, 36, and 76. I saw the patient, whose case is numbered 18, at several other times besides those mentioned in the report; and certainly he was thoroughly assured that a direct remedial influence was exerted on his hands by the application of ice to the back of his neck. Case 28 is a striking example of a morbid affection restricted almost exclusively to the trophic nerves of the hand: about three times a week for several weeks immediately before I saw the patient her left hand had swollen, and had become hot, red, and numb; it was not painful, but before swelling it itched during a few minutes; the swelling lasted upwards of an hour. Under the influence of the Spinal Ice-bag this curious phenomenon soon ceased entirely. In Cases 14, 35 and 36, the action of the disordered spinal cord was strikingly manifested through the trophic nerves of the hands, and in these cases the remedial power of the Spinal Ice-bag over the disorder, as observable in the hands, was not less striking. In Case 76, the hand became swollen and red every time the patient experienced a severe neuralgic paroxysm, and in her case the swelling and redness were beneficially controlled within a week after the Spinal Ice-bag was first applied.

The lower extremities also exhibited the morbid action of the trophic nerves in Cases 3, 14, 18, 35, 36, 38, 46, and 77. In Case 3, the legs and feet were habitually swollen; but in this case the swelling was, I apprehend, due rather to a lack of vital force in the capillary circulation, resulting in passive exudation into the tissues, than to any excessive action of the trophic nerves; in Case 18, the swelling of the knee and ankle, which was considerable, and probably of gouty origin, was reduced with surprising rapidity; in Cases 14, 35, and 36 the swelling was generally diffused over the lower extremities, and, in the first of these two cases, there were numerous ecchymoses; in Case 38, the swelling of the knee came and went as an ordinary neuralgic complication; in Case 46, there was swelling of the right ankle—most probably of a gouty nature; and in Case 77, the swelling in question, which

was very pronounced, was undoubtedly due to gout. In all these cases the disorder was swiftly and entirely cured by the Neuro-dynamic method.

The Development of the Mammæ Influenced by the Neuro-dynamic Method.—In Cases 1, 5, and 85, the mammæ were notably affected. In Case 1, the left mamma was considerably smaller than the right; in Case 5, though the left mamma was very considerably developed, the right one was, as her mother remarked, "a mere piece of skin—quite flat." Under the influence of the Neuro-dynamic treatment the left mamma in Case 1 became equal in size to the right, no difference between them being discernible; in Case 5, the right mamma was so developed that the difference between the right and left was scarcely distinguishable. During the treatment the pain in the right breast in Case 1, and the rather hard and painful swelling in the left breast in Case 5 disappeared. In Case 85, one of the incidental results of the treatment adopted was a development of the mammæ so considerable as to cause the patient to express her belief that had she submitted to the treatment earlier she would have become a mother.

In this connexion I may mention a very remarkable case of a man whose testicles were made to swell so considerably as to become painful every time the Spinal Ice-bag was applied in the dorso-lumbar region.

Globus Hystericus.—In Case 38, the patient was distressed by "a burning lump" in her throat, which especially troubled her when she swallowed. It was quickly and completely got rid of by the use of the Spinal Ice-bag. The patient in Case 83 was pregnant: she was tormented with a feeling in her throat, which she insisted was caused by a fish-bone that she had "swallowed" about three months previously. The distress produced by it had, she declared, been increasing ever since. The patient was submitted to the Neuro-dynamic treatment October 4, 1871; on the 10th she reported that her throat was "ever so much better," and that it did not wake her in the night as formerly; on the 24th she said the throat continued "very much better;" and, on Nov. 7th, she reported that the application of the upper cell of the Spinal Ice-bag along the cervical spine relieved her each time it was applied. As the feeling complained of was a phenomenon of reflex action, originated by the growing ovum, it was to be expected that the tendency to its reproduction would continue, as it did, until the patient was delivered. Meanwhile, its subjugation by the Neuro-dynamic method is a fact as interesting and instructive as it is important.

Shortness of Breath.—In Case 13, in which the difficulty of breathing was especially pronounced, a great improvement was effected; in Case 39, the like difficulty was removed altogether; in Case 45, the patient who, along with a cough, suffered from

shortness of breath when going up-hill or up-stairs, declared that she had become much better in this respect. These are the only cases among the hundred here given in which I appear to have noted the symptom in question; but it is probable that in some of the other cases in which there were chest symptoms, and in which a cure was effected, difficulty of breathing, though not noted, was one of them. Speaking from experience in other cases, in which shortness of breath has been associated with inadequate performance of the menstrual function, I can state positively that in numerous cases this symptom, though very marked, has been made to vanish entirely by the Neuro-dynamic treatment.

Cough was complained of in Cases 13, 39, 50, 53, 80, 94, and 97. In Case 13, the lungs were very feeble and delicate, the whole constitution was especially weak, and the menstrual function was particularly inadequate and unhealthy. But, even in this case, so much was done to allay the cough by improving the health of the nervous system, and thus, *inter alia*, at once increasing menstruation and rendering it painless, that, though she did not cease to cough altogether, she ceased for considerable periods together, and gained immensely in general health and strength. In Case 39, the patient had what she called "a dreadful cough," of which she was completely relieved by the use of ice alone, so applied as to increase the circulation in the pelvic viscera and lower extremities. In Case 50, there was a cough, which was cured on the same principle and in the same way as the one in Case 39, the only difference being, that in Case 50, besides using ice, the patient took, during the first week of treatment, an ounce of infusion of calumba twice a day. Case 53 is a remarkable example of the cure of a distressing chest affection without drugs, and without any application to the chest: the patient slept soundly, except that frequently, though not every night, she was seized with a violent cough, which lasted from a few minutes to two hours, and caused a distressing "dragging" sensation at the base of the chest. The Neuro-dynamic treatment was the same in this case as in the two cases last mentioned, and was only supplemented by the prescription of aperient pills, to be taken when the bowels were confined: the cough was rapidly and completely cured. In Case 80, cough, which was a prominent symptom, was markedly lessened within a week, and was speedily cured completely by the Neuro-dynamic treatment, the only addition being infusion of calumba. In Case 94, a boy, who had suffered during several months from "a very bad cough indeed," especially during the night, was quickly and completely cured. In Case 97, the patient had a severe cough which troubled her both winter and summer, and which, without any drugs, and without any applications to the chest

itself, was so nearly abolished by the Neuro-dynamic treatment, continued during six weeks, that at the end of that time it scarcely troubled her at all.

Expectoration was a prominent symptom in Cases 13, 53, 80, and 97. In Case 13, it was so subdued that it continued absent for months together : and in the other cases it was abolished completely by the Neuro-dynamic method, without drugs, and without any applications to the chest itself.

In the course of this commentary, only those chest affections are adverted to which presented themselves incidentally along with other disorders ; but even these few cases will supply precious intimations to those who will duly consider them ; and my experience enables me to add the assurance that, in the treatment of this group of disorders, the remedial power of the Neuro-dynamic method is extraordinarily great.

Nausea and Vomiting.—These distressing symptoms, which are of very frequent occurrence, and which, in a large proportion of case, are incontrollable by drugs, presented themselves in Cases 10, 22, 23, 24, 31, 43, 69, 72, 74, 83, 87, 88, 93, 95, 96, 97, 98, and 99. In Case 10, the patient had suffered during many years nearly every day from nausea, and occasionally vomited "water ;" in Case 22, the patient "vomited more or less throughout each menstrual period, and suffered much from nausea :" in both these cases the sickness was completely and permanently cured. In Case 23, the patient made the astonishing statement that since childhood she had vomited every morning of her life, and that her mother and two sisters were affected in like manner : I prescribed for her on the first occasion, Dec. 18, 1867, and ten days afterwards she reported that she had not vomited at all since the ice was applied the third time. She was poor, and lived unhappily with her husband, and finding it difficult to pay for the requisite amount of ice, she soon failed to apply it regularly ; and Feb. 15, 1868, she reported that she was troubled with sickness about every other morning. She was then urged to use the ice more persistently ; and March 4th, she reported that though she still felt nausea occasionally, the vomiting had ceased. In Case 31, the patient suffered from "frequent vomiting—especially in the morning : the smallest disagreeable smell made her vomit." At the end of the first fortnight of treatment her vomiting stopped altogether. In the remarkable case, No. 43, the patient volunteered the assurance that the Spinal Ice-bag stopped her sickness. In Case 72, the patient strained himself by carrying a heavy load, and during each day after the accident, until I saw him, he vomited the greater part of each meal a few minutes after taking it : by the Spinal Ice-bag alone his sickness was immediately and completely stopped. In Case 74, nausea and vomiting of six

months' duration were thoroughly abolished within a fortnight from the time the treatment began. In Case 87, the patient had also been troubled, during a long period, with the like symptoms, was completely relieved of them, and as rapidly as in the previous case. The remarkable case, No. 88, is worthy of especial attention as a proof of the power of the Spinal Ice-bag, not only in stopping severe and persistent vomiting, which drugs fail to control, but in removing the cause of the malady. Case 92 exemplifies the same power: in this case the vomiting was due to inflammation of the kidneys. In Case 93, the patient had suffered during about five months from vomiting, which ceased completely and permanently as soon as the treatment had been continued a single day. In Case 95, the patient had suffered during more than two years from severe attacks of vomiting, which usually lasted from two to four hours, and which recurred oftener than once a week: not until exactly a month had elapsed from the time the treatment began did the vomiting recur; it was then experienced but once, and from that date finally ceased. In Case 96, the boy, sixteen years old, had suffered from very frequently recurring and severe attacks of vomiting since his infancy: from the time I began to treat him, March 18th, 1872, the vomiting steadily lessened, and on the 3rd of April following it ceased altogether. Cases 98 and 99 are truly wonderful instances of the efficacy of the therapeutical method in question. In Case 99, the patient vomited nearly every day, from Oct., 1871, to April, 1872, when I first saw her: her treatment began April 26; on the 28th the vomiting was markedly lessened; on the 29th it ceased, and it has never since recurred.

The Sickness of Pregnancy presented itself in Cases 83 and 98, in the first as a subordinate malady, in the second as the principal one; in both the Spinal Ice-bag was wonderfully remedial, and, in Case 98, it recovered the reason and, in all probability, saved the life of the patient. This terrible malady, incomparably more prevalent, and far more serious, because far more prolonged, than sea-sickness, was like it, confessedly uncontrollable by medical art until the date (1863) when I demonstrated its curability by means of the Spinal Ice-bag. Since then several severe cases have been under my care (I have only been consulted in severe cases), and *in every case* the Neuro-dynamic treatment has proved successful.

Diarrhœa occurred in Cases 60, 69, 81, 86, 90, 96, and 99, and each of these cases presented peculiar features deserving special attention. In Case 60 the disorder recurred monthly as a prelude and accompaniment of the catamenia. Associated with the diarrhœa were pains in the abdomen so severe as, according to the patient's phrase, nearly to draw her double. In Case 69

the disease occurred more or less throughout each catamenial period. In Case 81, the patient, a musician, had been long accustomed to feel, whenever he was going to give a concert or to perform in public, a sort of apprehension affecting his bowels, and causing him to have a markedly loose stool about five minutes before the concert began. An endeavour to let the bowels act half-an-hour before was of no avail as a preventitive of the inconvenience complained of. In Case 86 the disease, which had lasted three months when I first saw the patient, troubled her both night and day: in the daytime the bowels were moved almost immediately after the patient took any food or drink, so that she was almost afraid to take anything, "because it brought it on;" it also came on about midnight every night after she had been in bed about two hours, during which she generally slept. In Case 90 the patient was attacked by diarrhœa each night about midnight, when the disease became very severe, and then gradually lessened towards morning: the bowels were moved eight or nine times each twenty-four hours. In Case 96 the patient, sixteen years old, had been afflicted with diarrhœa ever since his infancy: it was a common experience for the boy's bowels to be moved nine or ten times during the day, and several times during the night—the food often seeming to pass in an undigested state. Both the patient and his mother declared that the longest period that they could recollect him to have remained free from diarrhœa was five days at a time, "and then," his mother added, "it was when he was taking diarrhœa mixture." In Case 99 the patient had been suffering from diarrhœa almost incessantly during five months, when I was consulted, and had long been peculiarly prone to the disorder. Of course, as in each of these cases of this troublesome malady it had been unusually prolonged and intractable, I was not consulted until all the resources of the medical practitioners attending the patients had been tried and found of no avail. And yet in all these cases a complete cure was speedily effected by the Neuro-dynamic method of treatment, the success of which is still more fully exemplified in my reports of "Cases of Diarrhœa and Cholera," published in 1871.

Flatulency is exemplified in Cases 3, 59, and 85. Indeed, it is so common an accompaniment of disorders of the nervous system, that it doubtless occurred in many other of the cases given in this volume, though I do not appear to have recorded its presence. Cases 3 and 85 were well deserving of the expressive epithet—drum-belly. That in these and in like cases the flatus is not produced by chemical decomposition of the ingesta, but that it is formed from the blood, and effused by the mucous membrane by the morbidly excessive operation of nerve force, is, in my opinion,

provable by facts and arguments which cannot be gainsaid. If so we must suppose it probable, *à priori*, that the disorder will be treated most successfully by suitably modifying the condition of the nervous system ; and experience, as reported in Cases 3 and 85, as well as in many other cases of the disorder which I have treated, proves the supposition to be well founded.

Constipation was a symptom in Cases 7, 10, 13, 20, 22, 29, 30, 39, 40, 49, 53, 59, 87, 88, 91, 92, 95. In all these cases, except those numbered respectively 30, 39, and 59, it is shown in the reports that the constipation was overcome by the Neuro-dynamic treatment ; and, though in the three cases last named the improvement in the action of the bowels is not reported, the general restoration of health which was effected leads me to believe that the function of the bowels became normal. The doctrine that by one and the same method of treatment diseases so opposite in character, as diarrhœa on the one hand, and constipation on the other, may be most thoroughly cured seems paradoxical, and yet in reality it is not so. In cases of diarrhœa the nervous centres, which innervate the mucous lining and muscular coat of the intestines, are chiefly involved in tumultuous excitement, hence the exuberant out-pouring from the mucous membrane, and the violent action of the vermicular muscles of the tube. In cases of constipation, which is generally a chronic malady, the intestine is insufficiently nourished, owing to an excessively energetic action of its vaso-motor nerve centres. As by that excessive action its blood-vessels are unduly contracted it receives an insufficient supply of blood ; the consequence is, both its mucous membrane and its muscular coat are inadequately nourished. In fact, the muscular coat is in many cases so enfeebled as to become all but paralysed from sheer want of nourishment. Assuming the correctness of this explanation, it is evident that a sedative influence exerted on the nervous centres concerned in the production of both diarrhœa and constipation, seems likely, *à priori*, to prove curative of both diseases, as indeed experience shows that it does ; but in cases of diarrhœa the nervous centres which are chiefly disordered are, I apprehend, more immediately spinal—more directly connected with the brain than are those which are chiefly disordered in cases of chronic constipation, and which are more exclusively sympathetic—vaso-motor, in fact—and thus secluded as far as possible from cerebral, or emotional influences.

Deficient Menstruation.—The great prevalence of this disorder is decisively attested by the fact that it was present in about a fourth of the whole hundred cases here given as cases in which pain was a prominent symptom, although several of the patients whose cases are here reported were of the male sex. The disorder occurred in Cases 1, 6, 7, 9, 22, 25, 29, 31, 33, 41, 42, 45, 47, 49, 50, 54, 60, 63, 64,

69, and 84; and in all these cases, except 42 and 45, the catamenia were increased in quantity, and, in several of the cases in which there was scope for improvement, it was also improved in quality. Even in the two excepted cases an improvement was effected: in Case 42 the pain and giddiness incidental to menstruation were abolished, and it is more than probable that had the treatment been prolonged, the flow would have been decidedly increased; and the same remarks apply to Case 45. The aggregate result here described is surely very remarkable, and the more experience of the diseases peculiar to women is possessed by anyone who considers this result, the more readily will he acknowledge that it is without parallel in the therapeutical history of the malady in question.

Retarded and Excessive Menstruation are exemplified in Cases 3 and 66. In Case 3 the patient had often passed seven and eight weeks without menstruating, and then again she suffered from profuse menorrhagia. In Case 66 the patient had menstruated every sixth or seventh week profusely, and had continued to do so during several years. Both these patients became, under the influence of the Neuro-dynamic treatment, quite "regular" in respect to both time and quantity.

Retarded and Scanty Menstruation.—In Case 37 the patient went from six to ten weeks without the recurrence of the catamenia, which were especially scanty: although she was under treatment only six weeks, the flow was rendered decidedly more copious; whether or not it was accelerated, she was not under treatment long enough to show. In Case 44 the menses had been completely suppressed during three months, when she came under my care, Oct. 24, 1868: on the 30th she began to menstruate, and continued to do so till the end of Nov. 2nd. This effect was wrought by the Spinal Ice-bag alone; I had previously treated her with aloes and arsenic in succession without benefit. In Case 68 the patient had not menstruated for three months when she consulted me, Feb. 4, 1871, and before the menses were wholly suppressed, they had always been especially scanty, and very painful. The function was restored May 19th, the flow being free, of good colour, lasting three days, and painless. During the first three weeks of May this patient, besides using the Lumbar Ice-bag, took pilulæ aloes et ferri, gr. v., omni nocte. But the most remarkable case of this kind of which I have had experience is Case 67. In that case the menses had been completely suppressed during eleven years; they were, nevertheless, restored —have recurred with increasing frequency, until at length they have done so monthly. This patient had previously had the help of several physicians, and I do not hesitate to affirm that this restoration was effected solely, and could only have been effected by the Neuro-dynamic method.

Intermittent Menstruation, of which I have seen and cured several cases, was a notable feature in Cases 13 and 25, in which the menstrual flow and menstrual pain alternated with each other, and in which, while the pain was abolished, the flow was rendered continuous.

Leucorrhœa was experienced in Cases 3, 7, 25, 31, 37, 39, 42, 53, 54, 60, 62, 63, 64, 65, 66, 68, 69, 76, 80, 83, 84, 85, 91, and 97. Of the twenty-four cases here given there were thirteen in which the leucorrhœal discharge was stopped completely. In nearly all the remaining cases it was so nearly stopped that, practically speaking, the patients considered them cured; and in all of them the great improvement effected gave a reliable promise that by continuing the treatment a little longer a complete cure might have been effected in every case. As an example of what the Neuro-dynamic method can do in this disorder, Case 65 is deserving of special attention. The patient had suffered from it during many years: the discharge was so profuse that it saturated her stockings, and often compelled her even to change her boots; and yet by the use of the Spinal Ice-bag alone she was quickly and thoroughly cured! The grounds of strong commendation of Neuro-dynamic therapeutics in cases of leucorrhœa are threefold: 1st, the treatment effects a healthy change in the nervous system, disorder of which is the proximate cause of the disease, and hence it removes the cause; 2nd, this treatment dispenses altogether with the necessity of the disagreeable process—injections into the vagina; and, 3rd, it is pre-eminently successful.

Prolapsus Uteri.—In Case 3 the patient suffered so severely from this disease that, in fact, the womb often protruded "quite out" of the vaginal orifice—generally after she had used any extra physical exertion. In Case 25 the patient was habitually troubled with "bearing down of the womb." In Case 29 the report says,—the patient "suffered from *prolapsus uteri*, on account of which she began to have medical advice two years before" she consulted me. In Case 65 the patient suffered from "habitual *prolapsus uteri*—the mouth of the womb often protruding through the os vaginæ." In Case 80 the patient had a constant sense of bearing down of the womb: "when I walk," she said, "I feel as if it were all open—so peculiar; when it's worst my cough is very violent." In each of these cases a complete cure was effected, without the aid of drugs, without the use of pessaries, and indeed without any appliance to the womb itself, by the simple, but thoroughly scientific, expedient of strengthening the whole of the pelvic viscera by increasing their supply of blood, and therefore of nutrition—a process easily accomplished by the Neuro-dynamic method. Surely, the cures here recorded of the extremely distressing malady in question—

a malady hitherto incurable—should be sufficient of themselves alone to constrain professional study of Neuro-dynamic medicine, which, however, seems likely to be practically appreciated by the people long before any, but a few isolated physicians here and there, have condescended even to examine it.

Excessively Frequent Micturition.—The necessity of "making water" with extreme frequency is an especially prevalent disorder, indeed, even medical art has hitherto been powerless to remedy; which, however, the etiology of the malady, like several others now passed in review, has not hitherto been understood. This disease is simply a result and expression of excessive reflex activity of those excito-motor nerve centres in the spinal cord which are functionally related to the bladder. Being so, the disease cannot be cured by efforts directed to the bladder itself; but how easily a cure can be effected by the sedative influence of cold applied over the spinal cord is decisively demonstrated by the experience recorded in the reports of Cases 7, 25, 29, 30, 37, 38, 42, 43, 52, 56, 70, and 78.

Albuminuria, with Anasarca.—The rapid abolition of these symptoms, which presented themselves in Case 92, and which were no doubt due to acute inflammation of the kidneys, is especially remarkable and interesting. Feb. 21, 1872, the scalp, face, hypogastric region, and the legs and feet were swollen—the latter being generally so, and also œdematous; and the urine was loaded with albumen. Feb. 26, after treatment during five days the swelling had almost subsided, and the amount of albumen in the urine was strikingly lessened. By March 4th the dropsy had quite disappeared, and the amount of albumen in the urine had become extremely slight; and on March 18th, there being no trace of albumen in the urine, and all other symptoms having vanished, the patient was dismissed cured.

By reference to the report of this case it will be seen that, besides the Spinal Ice-bag, drugs and the Turkish bath were also used in the treatment of it; and I shall not attempt to determine to what extent they contributed to effect the cure; but as an aid to the judgment of my readers I may mention that I have cured a case of albuminuria, which had existed a considerable time, by the Neuro-dynamic method alone.

Diabetes Mellitus.—Cases 8 and 15 exemplify the successful treatment of this formidable disease by the Neuro-dynamic method. In Case 8 the patient, during the period of treatment, took no medicine, and had the ordinary diet of Guy's Hospital—neither saccharine nor farinaceous matters being withheld. Nevertheless, during the period of treatment, extending over only six weeks, the amount of urine voided daily was gradually reduced from eighteen to seven pints, the general health of the patient being

correspondingly improved meanwhile. Unfortunately he felt himself so thoroughly recovered, that at the end of the six weeks of treatment he insisted on leaving the hospital, and was lost sight of.

Case 15 exhibits results less striking, perhaps, than those of Case 8, but not less satisfactory ; and as attesting the power of the Neuro-dynamic method in the treatment of this disease, I may mention that in a case confided to me by Dr. Goolden, at St. Thomas's Hospital, after the patient had been treated during a considerable period by means of the Turkish bath, I succeeded in reducing the amount of urine voided daily from five pints to four, and its specific gravity from 1030 to 1022 ; also, that in a case in my private practice which had been previously treated by the celebrated Ricord, I effected a complete cure of the disease : in that case the rapidity with which the cure was effected was no less astonishing than was the fact of the cure itself.

Coldness of the Extremities was a prominent symptom in Cases 1, 8, 9, 10, 15, 22, 24, 25, 27, 28, 29, 30, 31, 33, 39, 40, 42, 43, 45, 47, 50, 56, 58, 60, 61, 63, 64, 68, 74, 81, 84, 91, 95, 96, 97.

Coldness of the general surface of the Body is exemplified by Cases 4, 52, 86, 90, 95.

These cases prove in the most decisive and striking manner that the peripheral circulation can be powerfully and beneficially influenced, without acting in any way directly on the surface of the body, by the simple expedient of modifying the temperature along the spine. I refrain from referring more particularly here to the evidence which these supply of the truth in question because in the previous section I have already, for another purpose, adduced that evidence in detail.

Tenderness along the Spine was observable in Cases 32, 35, 36, 37, 43, 51, 58, 66, 72, 73, 76, 78, 80, 86, 90, and 97. The fact that this symptom is reported to have obtained in this large proportion of the whole hundred cases in question affords considerable corroboration of the general doctrine insisted on throughout my medical writings that the various diseases now passed in rapid review are all, essentially and fundamentally, diseases of the nervous system. It is probable that a considerably larger proportion of the hundred cases would have exhibited this tenderness if all of them had been examined : what proportion of them were not examined I am, however, unfortunately unable to say. As spinal tenderness was not usually a symptom *complained of*, and as it usually becomes undiscoverable when the morbid phenomena in different parts of the body with which it is associated are no longer observable, I have not, as a rule, kept any record of its disappearance along with these phenomena. Its existence, however, is none the less interesting and instructive.

The Correlations of Different Diseases.—On this subject a very important and a very instructive chapter might, and, indeed, no doubt will, be written ; but here I must crowd what I have to say upon it into two or three pages. If, as intimated in the preceding paragraph, the diseases now passed in review are all phenomena of disease of the nervous system, it is manifest that, as they arise out of a common ground, they must be fundamentally related, and that given any particular disease which is a phenomenon of a morbid affection of some particular part of the spinal cord, or of some particular ganglionic centre, the development of other diseases which are phenomena of a morbid affection of neighbouring parts of the spinal cord, or of neighbouring ganglionic centres, may be predicted with the certainty that in a large proportion of cases, at least, the prediction will prove true. And, conversely, it may be predicted with equal certitude that a method of treatment which proves curative of one of a group of such correlated maladies will prove curative of its correlatives also.

Some time ago I was consulted by a lady, who informed me that she is liable to hæmorrhoids, and that she is especially troubled with them at or about her catamenial periods. In fact, in her opinion, which she volunteered to me, the two discharges produce each other : whichever begins first, the other is pretty sure to follow. Another of my patients, who used to be liable to pulmonary hæmorrhage, was especially prone to it during her catamenial periods, or immediately afterwards. In both these cases the catamenia were unduly copious. In a third case under my care, and the particulars of which were published in the *Medical Mirror*, the patient had suffered from profuse and often recurring hæmorrhage from the bowels during upwards of twenty years, and yet she menstruated regularly and abundantly. It is evident therefore that the hæmorrhoids in the first case, the pulmonary hæmorrhage in the second, and enteric hæmorrhage in the third, cannot have been vicarious of the catamenia, although in the first and in the second case the morbid discharge was especially liable to occur in connection with the catamenial period. I regret that in the third case I did not give special attention to this point, and therefore did not learn from the patient whether she was especially liable to the attacks of enteric hæmorrhage at her menstrual periods. After my attention had been arrested by these cases, I began to look out for similar cases, and I have found that they are by no means rare : in the present year (1872) two cases of this kind came before me in one afternoon. One of them was a case of pulmonary, the other of enteric, hæmorrhage, associated with the catamenia.

Now, as these hæmorrhages were not vicarious of the catamenia,

and, as in the first and second case, they came on most especially at the catamenial periods, the interesting question arises,—why, in these two cases, was the hæmorrhagic tendency especially strong during the catamenial periods? I have reflected much on this problem, which I have never seen adverted to by any medical writer, and which therefore, so far as I know, has never been explained. The following explanation, if not the true one, will perhaps seem worthy at least of provisional acceptance, and will, at all events, serve, I believe, as a valuable guide to treatment in cases like those in question.

I must premise, in accordance with the doctrine expressed in the first paragraph of this section, that, as a general rule, when any special condition of the circulation of the blood in any part of the body occurs—any grade of anæmia, hyperæmia, or congestion, for example—there is a tendency in the organism to extend that condition to adjoining or surrounding parts, the parts immediately contiguous partaking of that condition most completely, and those more remote less so in proportion to their distance. Thus, for example, that form of local hyperæmia and ultimate inflammation known as a common boil, is characterised by a gradual diffusion of the morbid condition throughout the surrounding parts—that condition becoming less and less marked in the parts increasingly remote from the centre of inflammation, until at length it is no longer perceptible. Now, such I hold to be the case in respect to the nervous, as well as in respect to all other vascular, structures. Assuming that it is so, and I presume no one will deny the correctness of this assumption, we have, I think, in this fact rightly interpreted the explanation of the tendency to simultaneousness of the discharges in question.

The phenomena of menstruation, if not actually of nervous origin, are certainly very intimately connected with the functional activity of the nervous system. During the times between each catamenial period the ganglionic nervous centres, functionally related to the womb, are acting with that amount of energy which is necessary to maintain the uterine arteries in their ordinary state of constringency—a state which allows of the withdrawal from them of the amount of blood requisite for the nourishment of the organ. But at length that energy is overbalanced: the positive motor nerve centres (trophic and secretory) related to the reproductive organs enter on their periodical phase of excitement, and transmit a correspondingly great amount of force to every part of the ovaries and womb. Each part thus rendered, as it were, powerfully electric, is enabled to attract, through the arteries which supply it, a larger amount of blood than before, and, as all the parts are thus acted on simultaneously, there is a general enlargement and turgescence of the organs. The swelling of the ovaries attains its maximum when they extrude the ova

into the fimbriated extremities of the Fallopian tubes; but the swelling of the womb, and the sanguineous tide flooding every part of it, begin to subside only when, after distending to the uttermost the delicate capillary vessels of the uterine mucous membrane, the blood oozes through their exquisitely thin walls, and escaping into the uterine cavity constitutes, along with the modified product of the glandlets of that membrane, the menstrual flux. Gradually the cerebro-spinal, or positive motor, force which, temporarily over-balancing the sympathetic or negative motor, produces these tumultuous phenomena, declines again, and the quiescent life of the organs, due to the equipoise of these two forces, is resumed. Now, when the cerebro-spinal centres in question enter on their monthly, or at least periodical, state of hyperæmia, excitement, and predominance over their corresponding sympathetic centres, the temporarily hyperæmic condition of the former is generally extended more or less to proximate centres. If, however, certain centres in the spinal cord, though less near to those primarily affected as described, are from any cause more susceptible to disturbing influences, they will tell even more distinctly of those influences than will those centres which are actually the nearest to the focus of disturbance; for example, the fact of the intimate functional and sympathetic relation between the positive motor nerves of the uterus and those of the mammæ explains the commonly observed swelling of the latter as a prelude and accompaniment of menstruation. Whenever the peculiar vascular condition of any given nervous centre is propagated to others, the circulation of the blood in the peripheral parts to which those centres are functionally related will be correspondingly disturbed, and if the peripheral blood-vessels of those parts—the mucous membrane of the bowels or of the bronchial tubes, for example—be in any given case especially feeble, hæmorrhage from them is likely to occur, and often does occur. The trophic nerve-centres of the enteric mucous membrane are closely contiguous to those of the womb; and those of the pulmonary mucous membrane are closely contiguous to those of the mammæ: from these facts I deduce the probability and explain the occurrence of enteric and pulmonary hæmorrhage as occasional concomitants of menstruation.

Holding this hypothesis respecting the origin of simultaneous hæmorrhages in such cases as those I have mentioned, I have been led to treat them by stimulation of the vaso-motor (negative motor) nerve centres. This I do by the application of heat on each side of the appropriate part of the spine by means of the Spinal Water-bag, and with very satisfactory results. And so far from regarding such hæmorrhages in any sense vicarious, I do not hesitate even to put an end, for a time, to the menstrual flow itself by means of heat, if doing so should prove a necessary condition of arresting the simultaneous bleeding from the bowel.

SECTION III.

NEURO-DYNAMIC MEDICINE EXEMPLIFIED: A SERIES OF CASES ILLUSTRATING ITS PRINCIPLES AND PRACTICE.

CASE 1.—*Mammary, Ovarian, and Uterine Neuralgia; Headache; Singing in the Ears; Little Fits.*

Mary H., aged seventeen, whom I saw for the first time 24th February, 1863, was troubled with frequently recurring pain in the right breast. She had had this pain, she said, as long as she could remember; the right breast was considerably larger than the left. She also complained of very severe pains in the left ovary, which were increasingly acute immediately before the recurrence of the menses. Pressure over the painful region caused great suffering. Menstruation, which only lasted a day, and which was preluded by headache and general feverishness, was accompanied with "fearful cutting pain" in the womb. She suffered almost constantly from headache and singing in the ears. In her fourteenth year she began to have epileptic fits, and had long been troubled, when I first saw her, with little fits every day, chiefly in the morning and evening. Her feet were habitually cold; her hands generally so. She had a sallow complexion, and was depressed and melancholy.

She had been an out-patient at the Soho Hospital for Women during two years; then at the Middlesex Hospital upwards of a year; and, finally, at the National Hospital for the Paralyzed and Epileptic about nine months: during the whole of this time she derived no substantial benefit from the treatment she underwent.

I treated her by the Neuro-dynamic method; I also prescribed the use of flannel drawers and armlets, abundant physical exercise, and the use of aperient pills if the bowels should be constipated.

The little fits and the singing in the ears ceased entirely in the month of March, or within a month from the time the treatment began. In May the mammary and ovarian neuralgia had also quite ceased; and the catamenia, which had increased on each occasion after the patient came under my care, and which already

continued nearly a week, were preceded by no distress, and were accompanied by no pain whatever. Her feet and hands had become continuously warm. She had headache very rarely, and when it did occur it was very slight. Her complexion had become much brighter, and her expression much more cheerful.

The treatment was continued pretty regularly until the end of July, when the difference in the size of the two mammæ was scarcely discernible. After this date the Spinal Ice-bag was applied irregularly, and much less frequently, and on the 25th of August was discontinued entirely. The mammæ then appeared to be quite equal. I saw the patient again Nov. 20th, when I examined them carefully: neither she nor I could observe that the right one was in the least degree larger than the left.

I saw this patient on several occasions long afterwards, and she assured me that the troubles on account of which she consulted me had never recurred.

Case 2.—*Uterine Neuralgia.*

Mrs. B., a paralytic, who consulted me April 29, 1863, complained of "dreadful pain down the back, and over both hips," throughout nearly the whole of each of her menstrual periods; it was most severe, however, during the first three days. She did not begin to menstruate until she was eighteen years old; but the flow, she said, was fairly copious. Cold was applied along her spine, in one way or another, during the whole of the following May and June; and when the catamenia recurred on the second occasion after the treatment began, they were preceded by no pain whatever; she had "very trifling pain" restricted to the back during the first two days, and afterwards no pain at all.

Case 3.—*Severe Backache; "Drawing-down Pain" in the Pelvis; Cutting-pain in the Womb; Continuous Headache; Dimness of Sight; Swelling of the Abdomen, Legs, and Feet; Extreme Prolapsus Uteri; Irregular Menstruation; Menorrhagia; Profuse Leucorrhœa.*

June 7, 1863, Mrs. M., aged thirty-five, consulted me on account of her manifold sufferings. Her backache, dragging pain in the pelvis, and what she called "a sort of cutting pain" in the womb were incessant. She had headache all day every day. Her sight was so feeble and dim that she

could not tell the time by the church clock, which was close to her house; and one object often appeared to her, she said, as several. Her abdomen, legs, and feet were habitually swollen, and she suffered terribly from *prolapsus uteri* and leucorrhœa, which came on simultaneously soon after the birth of her first child, seven years previously. She had had three children; and, after the birth of each, both these disorders seemed to increase. The womb had often protruded "quite out" of the vaginal orifice—generally after she had used any extra physical exertion. She had many times passed seven or eight weeks without menstruating, the leucorrhœa being much increased. She had also suffered from profuse menorrhagia—what she called "flooding"—on several occasions. Her countenance was depressed; she had a sallow complexion, and her appetite was very feeble. She complained of great and general weakness: she felt as if she must drop down, and had fallen "many a time."

She was treated solely by means of the Spinal Ice-bag.

On the 25th of June—less than three weeks after the treatment began—the patient reported a great improvement: her backache had lessened; she rarely had headache; the "cutting pain" in the womb had ceased; her vision had become quite clear and normal; the abdominal swelling had nearly subsided; the womb came down much less both in extent and frequency; she felt altogether much stronger; her appetite had become vigorous; and her complexion and expression had immensely improved.

Early in July she menstruated freely; after the menses had ceased the leucorrhœa did not recur. The swelling of the feet as well as of the abdomen subsided entirely, and all her other troublesome symptoms wholly disappeared. I saw her on the 18th of the following November, when she assured me that since the early part of July she had not been troubled with any white discharge, prolapsus of the womb, bearing-down pains, headache, giddiness, or dimness of sight; that with one exception, when she became "unwell" earlier than she ought to have done, she had continued to menstruate at the normal intervals, and that in all respects she was quite well.

Comment.—This case will always be invested with peculiar interest because it was the first one in which experimental proof was obtained of the truth of the doctrine insisted on in my writings, viz., that prolapsus uteri and leucorrhœa are most effectually and most certainly, as well as most agreeably, curable by lowering the temperature of those segments of the spinal cord, and of those sympathetic centres functionally related to the morbidly affected parts.

CASE 4.—*Cramps of the Lower Extremities; Clonic Spasms of the Muscles of the Lower Jaw; Cervical Neuralgia; Dimness of Sight; Subjective Spectra; Distressing Coldness of the Surface of the Body generally, and especially of the Feet.*

Mrs. E., aged sixty, consulted me June 11, 1863, when she complained of extremely painful cramps in the thighs and legs—so painful that she never passed a night without getting up at least twice to relieve herself by rubbing them. She also complained of a peculiar and involuntary closure of the lower jaw, sometimes so violently as to wound her lip. This spasmodic affection of the muscles of the jaw had been experienced several times a day during the three weeks before I saw her. She was also troubled with an "aching pain" at the top of the neck during the night. Her sight was often dim, and frequently she was much afflicted in the night by the vision of a very bright light—"brighter than any Bude light I ever saw," she said, and with an inexplicable "feeling of thorough terror and distress," which frequently compelled her to get out of bed and pray to be relieved of it. She complained of excessive lassitude and sleepiness in the day time; she slept very little at night, and even when disposed to sleep was often prevented from doing so by the cramps in her limbs. She had become thinner than formerly, had a very feeble appetite, and although warmly clothed, suffered extraordinarily from cold. Her feet were habitually and extremely cold. There was decided tenderness of the spine between the scapulæ.

She had "always been a crampy subject." For more than twenty years she had always been cold to the touch, she said, even over the shoulders and bosom, in spite of being well clothed. Two years before she consulted me she suffered from neuralgia in the ball of the eye; since then frequently from neuralgia in the face, which on the last occasion continued two months, and ceased about a fortnight before I saw her.

She was treated by means of the Spinal Ice-bag. I also prescribed the following medicines:—

℞ Hydrargyri chloridi, gr. j.; Ext. colocynthidis, gr. ii½; Ext. hyoscyami, gr. i½; M. ft. pilula alternis noctibus sumenda.

℞ Infusi calumbæ, ℥j.; Ferri et quinæ citratis, gr. vii. bis die.

At the end of the first week of treatment she reported that she had scarcely any cramps at all; that the feet had become constantly warm—warmer than she had ever felt them in her life; that the involuntary closure of the jaw and the pain at the top

of the neck had ceased; that her vision had become much clearer; that she had not once seen the "Bude light;" and that all her feelings of mental distress in the night had gone.

The patient continued the use of the Spinal Ice-bag as prescribed, but without taking any medicine after the first week, until July 8th, and after the cessation of the treatment she continued, with the exception of an attack of diarrhœa, perfectly well, and wonderfully warm all over. She was so astonished with the change in the temperature of her body, and by the subsidence of every symptom from which she suffered, that she called, July 15th, simply to show herself in evidence of the efficacy of the Spinal Ice-bag as applied in her case: certainly, considering the temperature of her body before the treatment commenced, the various symptoms of which she complained, the short time which the treatment continued, and the length of time the surface of the body had continued warm since it was left off, the result is astonishing. The skin was healthily moist as well as warm, and the patient was quite sure that she saw "very much clearer indeed" than she did before the treatment began.

CASE 5.—*Headache; Talking while Asleep; Backache; Neuralgia of the Right Thigh and Knee; Cramps in the Hands and Feet; Spasmodic Contraction of the Muscles of the Hands and Feet; Unequal Development of the Mammæ attended by Pain in the left one.*

M. R. J., a girl, aged thirteen, whom I saw for the first time June 15, 1863, complained of headache, which came on when she rose in the morning and lasted nearly half the day about four days out of seven. The pain was chiefly in the temples. She had very disturbed, restless nights, often started, and habitually talked "nonsense," her mother said, in her sleep. She also often suffered great pain at the bottom of the back, down the front of the right thigh, and in the right knee. She was frequently troubled with cramps in the hands and feet: they were most severe on the right side, and were increased in the hands when she held small things, especially a pair of scissors. The common extensors of the hands and feet were spasmodically contracted. The left pupil was considerably larger than the right. The feet were habitually cold. Bowels regular. Pulse 96. The patient had been in the habit of walking in her sleep, her eyes being open and quite fixed meanwhile. Her mother formerly suffered from epilepsy, her sister was then afflicted with that

disease, and one of her brothers had "dreadful fits" while cutting his teeth, and had also walked in his sleep.

She was treated by the Neuro-dynamic method, and in addition I prescribed the following medicine :—℞ Potassii iodidi, gr. ij.; ammonii bromidii, gr. iij.; ex aquâ bis die.

The effect of the Spinal Ice-bag was immediate: during the first week of its use her headaches became less frequent, and when they recurred they ceased earlier in the day than formerly; but after the first day of treatment the pain in the back, thigh, and knee, and the cramps in her hands and feet had ceased entirely. The appetite was improved, and the pupils had become nearly equal. During the nights she still continued about as restless as before. At the end of the second week of treatment she became quite free from headache, and both started less, and talked less nonsense, in her sleep. The inequality of the pupils had become so slight as to be almost imperceptible. On July 13th she said she felt quite well in all respects, and her mother reported that she was "merrier and better a great deal;" but her sleep had not yet become healthy, though her restlessness and the amount of "nonsense" she talked in the night had "steadily lessened."

August 4th, her mother said,—"She talks very little nonsense now," and reported that she continued free of all the other symptoms formerly complained of, and that her appetite was "wonderfully improved." At that date, however, she complained of a rather hard, painful swelling in the left breast. When her dress was opened, I saw, for the first time, that though the left mamma was very considerably developed, the right one was, as her mother said, "a mere piece of skin—quite flat." I ordered the medicine to be discontinued, the Spinal Ice-bag to be used as before, but to be inclined to the right side of the spine between the scapulæ, and the application of heat to the corresponding part on the left side several times a day.

The patient said, September 7th, that the hot water bag was soothing and very agreeable, and that the pain and tenderness of the left breast were lessened; and her mother remarked that the "nonsense" was "all but over." The same treatment was continued until October 13, 1863, when the mammæ, chiefly by the development of the right one, were so nearly equal that the difference between them was scarcely distinguishable. The left one was no longer either hard or painful. The pupils were equal. The patient had passed many nights without talking in her sleep at all; and as in all other respects she was in perfect health, the treatment was discontinued.

CASE 6.—*Uterine Neuralgia; Deficient and Irregular Menstruation; Epilepsy; Partial Dementia.*

Miss C. A., aged twenty-eight, first seen by me June 30th, 1863. She suffered extremely during at least two days immediately before, and during the whole of each menstrual period. Her mother said,—"She is doubled up with pain." She had never been regular as to time or quantity: had often gone two months without being unwell, and during the preceding half year the menses had recurred about every sixth week, and had lasted about three or four days, the discharge being very slight—"often a mere show." She did not begin to menstruate until she was twenty-one. The patient had suffered from epilepsy ever since she was two years old. Her mind was much impaired: she was quite childish, and had long periods of "sulkiness," or semi-stupor, when, as her mother said, she was "sickening for her fits." She never menstruated without having a considerable number of violent fits, which either preluded, accompanied, or closed each period. Her bowels were habitually constipated, and her feet were "always cold." In the hope of deadening her pain at her periods, and of bringing on or increasing the discharge, her mother gave her hot gin-and-water on each occasion.

I requested that the gin-and-water should be entirely omitted, and treated her by means of ice. She was under my care four months, during which she menstruated five times. During the third time she had very much less pain than ever before, and during the fourth and fifth times none whatever. On the fifth occasion the menses were copious. Her bowels became open daily without the aid of aperients, and her feet became quite warm, so that, as her mother said, there was "no longer any occasion to put them in hot water." The fits gradually became less in number, much shorter, and less severe; and on the third occasion the patient, for the first time in her life, menstruated without having a single fit.

CASE 7.—*Painful and Deficient Menstruation; almost Continuous Pain of the Right Eye, and Constant Headache; Severe Epilepsy; Habitual Constipation; Excessively Frequent Micturition; and Leucorrhœa.*

W. E., a girl, aged eighteen, who was admitted into St. Thomas's Hospital, July 30, 1863, suffered intense uterine pain of a "cutting or griping" kind, together with back-

ache, preceding and during the whole of her menstrual period. She could not stand, she said, because the pain was so dreadful. She had "terrible headaches every day, and nearly all day long," and almost continuous pain at the upper part of the ball of the right eye.

She usually had a severe epileptic fit about once a fortnight; but during the three months immediately before she came under my care she had had no large fit. She was afflicted with terrific "shakings," which consisted of sudden and violent jerks, sometimes of her arms, sometimes of her legs, and sometimes of her whole body. They often threw her down as if she were electrified. They seemed to her to proceed "from the waist and head;" she felt many times a week as if she had a tight string round her head; when this seemed to give way she fell down, and then felt as if grasped tightly round the waist. She fell down two or three times a day, but the number of jerks she had without falling was very great. She was most troubled with them early in the mornings, when they often occurred in continuous succession during an hour at a time. They recurred daily, except during the two or three days immediately following that on which she had had a large fit. During her "shakings" she generally retained her consciousness. Often when they were unusually severe her face and body were swollen.

Her vision was impaired: with the right eye she could only read test-type No. $3\frac{1}{2}$, and with the left, test-type No. $2\frac{1}{2}$. She could not distinguish objects or recognise persons at a moderate distance from her. If she read, her eyes became suffused with tears; and on dark or dull days she could scarcely read at all. Both her pupils were remarkably large, and contracted very slightly in the presence of light. She complained that her eyes were gradually getting worse.

Her bowels were usually constipated—often confined three or four days together. She always passed water during her "strong" fits, and habitually with abnormal frequency. The catamenia, which lasted about four days, were very scanty—"poor." She was troubled with habitual leucorrhœa, which was increased by warmth or a violent access of "shakings." She was generally very warm, often flushed, and troubled with what she called "wet-heat;" her back and hands were especially hot.

The patient was a "seven months' child." She had her first fit—a long one—when she was about three years old; she had a second about two years afterwards, and from that time she had usually had a strong fit about once a fortnight. The "shakings" came on about five years before I saw her.

She had been an in-patient of Middlesex Hospital upwards of four months, and out-patient at St. George's Hospital several

months, and also an out-patient at the National Hospital for the Paralysed and Epileptic between two and three years.

My treatment of this patient at St. Thomas's Hospital began August 7th, was continued until the end of October, and was solely by means of the Spinal Ice-bag. The following is a record of the changes which took place :—

Dysmennorrhœal Pain.—She began to menstruate Sept. 11th, and again Oct. 8th. Immediately before, and during each of these periods, she experienced no pain whatever.

Headache.—This gradually lessened, and, Sept. 22nd, finally ceased.

Aching of the Right Eye had quite ceased by the end of August.

Large Fits.—Aug. 12th, 1 ; Sept. 5th, 1 ; Sept. 25th, when ice was not being applied, 1. None afterwards. [On Sept. 19th the ice was ordered to be omitted until the patient should be clothed in flannel ; this having been done, it was resumed. The ice was re-applied Sept. 26th.]

"Shakings" or Jerks.—Of these the patient had an aggregate of 330 during the twenty-three days of treatment in August ; during the twenty-four of September in which they still continued she had only 230 ; and on Sept. 24th they finally ceased.

State of the Eyes.—Sept. 24th lachrymation had quite ceased ; the pupils were contracted to their normal size ; the eyes felt much stronger, and she could see distant objects much more clearly than formerly. Oct. 22, the pupils continued normally contractile, and the visual power had so improved that at that date she could read test-type No. 1½ with each eye.

The Bowels gradually became increasingly more active, and after Sept. 29th they continued to be opened regularly each day.

Micturition ceased to be abnormally frequent.

Catamenia.—The sanguineous secretion which recurred Sept. 11th was scanty as usual ; but on the 13th and 14th "a great deal of white stuff" was discharged ; and the flow which recurred Oct. 8th was quite healthy in respect to both quality and quantity.

Leucorrhœa.—This ceased entirely after the second menstrual period.

General Health.—Before the patient left the Hospital, Nov. 5th, she had quite lost the feeling of being swollen either in her face or body ; the flushings, as well as the "wet-heats," had ceased to trouble her ; and she expressed herself as feeling in all respects quite well.

CASE 8.—*Cramps and Coldness of the Lower Extremities, associated with Diabetes.*

John Dawson, aged twenty, farm labourer, was admitted into Guy's Hospital, Sept. 3, 1863, nominally under the care of Dr. Owen Reed; but, owing to his absence, Dr. Wilks had, in the first instance, charge of the patient. The patient believed himself to have been quite well seven months previously, when he first noticed an increase in the quantity of his urine. From that time he had gradually become weaker, and had been losing flesh. When admitted into the hospital, he suffered severely from cramps in the legs down to the toes inclusive. His feet, especially when he lay down, were usually cold; the skin of his hand was peculiarly hard and dry; his tongue was beefy-red; his bowels were fairly open; and his pulse was 80 per minute. During the five days he was in the hospital before he was submitted to treatment of any kind, the average quantity of urine voided daily was 18 pints, the specific gravity being on one occasion 1041, and on another 1033; he was extremely thirsty, and had a voracious appetite. Dr. Wilks allowed me to treat the patient by means of the Spinal Ice-bag, which was applied along the whole spine, until the lower extremities had become warm and free from cramps; and afterward it was restricted to the upper half of the spine. The patient had ordinary diet, ate what he liked, and took no medicine. The treatment, which began Sept. 3rd, ended Oct. 19, 1863.

Early in September the cramps ceased entirely, and speedily after their cessation the feet became completely and permanently warm. The patient's skin became soft and moist, and both his hunger and thirst steadily lessened. During the period of treatment the pulse averaged 90 per minute, and the quantity of urine voided daily was as follows:—

Sept.	4 - -	17 pints.	Sept. 23 to 26 incl. 11 pints.
„	5 and 6	17½ „	„ 27 - - 10¾ „
„	7 - -	17 „	„ 28 to Oct. 1 incl. 10 „
„	8 - -	16 „	Oct. 2 to 5 incl. - 9½ „
„	9 to 11 incl.	15½ „	„ 6 and 7 - 10 „
„	12 - -	14½ „	„ 8 - - 9½ „
„	13 - -	14 „	„ 9 and 10 - 9 „
„	14 to 17 incl.	13 „	„ 11 to 14 incl. - 8½ „
„	18 no report.		„ 15 to 17 incl. - 8 „
„	19 - -	12 „	„ 18 - - 7¾ „
„	20 to 22 incl.	11½ „	„ 19 - - 7 „

The specific gravity of the urine averaged during the month of October was 1031.

Simultaneously with the great and rapid diminution in the quantity of urine voided, the patient regained his wonted health and strength, and on Oct. 20, without permission from Dr. Rees or myself, he left the hospital, notwithstanding that the "sister" who attended him urged him to wait till he had seen one of us. He said he was so much better it was useless for him to stay any longer. I never saw him again.

CASE 9.—*Dysmenorrhœal Pain; Deficient Menstruation; Coldness of the Feet; Epilepsy.*

G. A. M., aged twenty-two, came under my care Sept. 29, 1863. She suffered "pinching, drawing pain" during the whole period of menstruation, and generally during one or two days previously. The menses, which recurred regularly, were scanty; the patient's feet were habitually cold; and she had epileptic fits—generally about three each month. She was treated by means of the Spinal Ice-bag, and took the following medicine:—

Ammonii bromidii, potassii bromidii āā, gr. v., in a wine-glassful of water twice a day.

On the 25th of October she began to menstruate: during the first and second day the flow was much more copious than it had been previously, while the pain experienced was very much less than she had usually felt. She reported, Nov. 2, that her feet had become continuously warm, and at that date she had passed six weeks without having a fit. The menses recurred Nov. 29th, and continued about a day longer than they had done formerly. She had no pain before the discharge came on; as soon as it had appeared, she had pain during two or three hours only, and none whatever afterwards; and she had no fit. Always, except on the last three occasions, she had had fits during her catamenial periods. Jan. 5, 1864, I was informed that the menses recurred on Dec. 31. She said,—"I had no pain at all, except a few pains in my stomach," and her period again passed without an epileptic attack. But though she was improved to the extent mentioned, no further progress was made, and the treatment was not continued.

CASE 10.—*Lumbo-abdominal Neuralgia of twenty years duration, associated with Sleeplessness, Nausea, Vomiting, Obstinate Constipation, and Extreme Coldness of the Feet.*

Miss E., aged about forty, complained January 14th, 1865, of extreme pain on the right side of the lower dorsal and upper lumbar

vertebræ, extending laterally on the same side of the back, and thence forward to the right hypogastric region. The pains continued every day and every night, and had lasted about twenty years. Sometimes, however, she had three or four hours' release from suffering. The pain was so distressing and wearing that the patient was greatly weakened, especially by want of sleep, and was disqualified from undertaking any regular occupation. During the previous three months she had not had a night's rest, and had trusted to narcotics for such sleep as she had had. She suffered nearly every morning, and frequently throughout the day, from nausea, and occasionally vomited "water." Her hands and feet were habitually cold, even in summer. The pulse was 94. Her menses recurred every three weeks, and lasted about three days each time; she complained of obstinate constipation—her bowels never being relieved without the aid of medicines. She had been attended by at least five regular practitioners, including an eminent London physician, who treated her during eight months; had also tried homœopathy and mesmerism; had taken considerable doses of quinine; had bathed in salt water, and had been in the habit of wearing, during a long period, a wet bandage round the abdomen.

I prescribed as follows:—Tinct. quinine co., ℥ij., at noon each day. ℞ potassii iodidi, gr. j.; potassii bromidii, ammonii bromidii, āā, gr. v., morning and evening. Apply the two lower cells of the Spinal Ice-bag during 30 minutes before breakfast, and just before going to bed.

When I saw the patient again, on the *4th of February*, the pain "was very much lessened," but she had not yet been a whole day without it. The nausea and vomiting had lessened; her feet had become warmer, and her appetite much better; she had menstruated since her last visit as usual. The patient found no discomfort from the use of the ice; but, on the contrary, she felt the cold pleasant. I ordered the treatment to be continued as before.

17th February.—The pain had increased somewhat again; it came on daily exactly at the same hour (half-past six p.m.), and lasted about two hours; but, on the whole, she was considerably better: she could sleep throughout the night, and had had neither vomiting nor nausea during the last two days; her general health, appetite, and spirits had improved, and a stabbing pain which she felt sometimes at the heart had ceased; the bowels were open every other day without the aid of aperient medicine.

March 3rd.—While using the Spinal Ice-bag as last ordered, her nose bled, and she had such fulness and pain of the head that she felt as if she should go out of her mind. After three days of this experience she reverted to my former prescription in respect to the

use of the bag. The head then became much better, but she still had slight headache and a sense of fulness. The neuralgic pains were so wonderfully better that she was filled with astonishment: she had passed an entire day without pain—an experience she had not had before for twenty years. The sickness was "nearly all gone;" feet very much warmer—in fact, she no longer suffered from cold feet—no more constipation. I prescribed the application of the ice morning and night in the lower and in the upper half of the middle cell, and requested that she should take no medicine.

April 1st.—She had been many days absolutely free of the neuralgic pain. As she remarked, "it might be said to be gone." Nausea and vomiting had quite ceased; bowels "very regular indeed." The Spinal Ice-bag had been left off a few days ago; since then the feet had ceased to be as warm as before, and the appetite and digestion had again become somewhat feeble. I ordered the ice to be reapplied once daily, and the Spinal Water-bag, medium size, temp. 120°, to be applied to the cervical and upper dorsal region each night after getting into bed. I prescribed at the same time the following medicine:—
℞ Infusi. calumbæ, ℥j.; Potassæ bicarbonatis, ammonii bromidii, āā, gr. v., bis die.

I did not see this patient again, but I heard more than once from her cousin that she continued well.

CASE 11.—*Neuralgia of the Head and Face, with Swelling and Extreme Tenderness of the Painful Parts.*

March 8th, 1865, I was requested to see Mr. T. H., a gentleman about thirty-five years old, who was suffering from neuralgia, chiefly of the right side of the head and face. I found him, at three p.m., in bed. He was in considerable pain, which had been continuous from the previous day, and which had wholly deprived him of sleep. He also complained of headache. The scalp was markedly tender, especially on the right side; the face also; and both were somewhat swollen. During the morning the left side had become invaded. The patient also complained of suffering from cold in the head—a sort of influenza, with considerable aching of both jaws. The head was rather hot; the forehead was slightly moist; the face flushed; the pulse strong and full, 92; the tongue was thinly coated with whitish fur. The malady began about a fortnight previously. During its continuance he had been treated by two physicians. Various medicines were prescribed, amongst them aperients, iodide of potassium, colchicum, cinchona bark, quinine,

and iron. I applied a ten-inch Spinal Water-bag, temperature 130° Fahr., to the cervico-dorsal region, and ordered it to be applied continuously so long as the pain should last. I then left him to write a prescription, promising to see him again before I should leave the house, and ordered quinæ disulphatis, gr. ii.; acidi sulphurici diluti, ℥ x., to be taken four times a day. Within half an hour from the time I applied the bag I returned to him, and found him asleep. The pulse had already fallen to 88.

March 9th, 4 p.m.—I found the patient up, writing a letter. Had had no pain since I saw him the previous day, except little threatenings, which were immediately subdued by the re-application of the Spinal Water-bag. Indeed, it was applied pretty continuously during the whole twenty-four hours. The tenderness and swelling of the scalp and face had subsided; the headache had ceased; and the countenance, no longer flushed, had assumed its natural expression. The patient had slept all night, being only disturbed by the refilling of the bag. He said,—"Once I felt sure a new attack was coming on, and I began to fear another bad night; the bag was refilled and reapplied, and soon I forgot all about my fears by dozing off to sleep. The bag is worth its weight in gold." The tongue was covered with a thick white fur; no appetite; bowels open twice; pulse (after dinner) 84; this morning it varied from 70 to 75. The patient was requested to apply the Water-bag when going to bed as before; on other occasions only if the pain should recur; to apply the two lower cells of the Spinal Ice-bag during thirty minutes three times a day; to avoid wine; and to omit one of the doses of quinine, taking only three in the day.

March 11th.—Had continued free from neuralgic pain. Had only used the Water-bag once—viz., on the night of the 9th, when going to bed. It sent him to sleep immediately; but in about half an hour he awoke with headache, and found his head very cold. His hands, having been beneath the bedclothes, were warm. He removed the bag, and applied one hand to his forehead. The headache speedily ceased. He found the Spinal Ice-bag agreeable, and wished to extend the time of its application. Pulse 72; tongue cleaner; bowels open, but insufficiently so; urine turbid. He was now requested to omit the Spinal Water-bag altogether, unless the neuralgia should occur; also the medicines already prescribed; to apply ice in each cell of the Spinal Ice-bag for forty-five minutes three times a day; to drink water freely; to take an aperient pill occasionally; and quinæ disulphatis, gr. i½; acidi nitro-hydrochlorici diluti, ℥ xv., bis die.

April 8th.—Had had no return of neuralgia, and attended to his business daily; but, though fairly well, he was not in robust

health, being troubled with a little flatulence and indigestion, chiefly due, I believe, to having his sleep frequently broken at night, in consequence of his wife's recent illness. I therefore gladly concurred in their project of going to the sea-side for a time.

I have often seen this patient since : he never had any return of the neuralgia.

This is the first case in which neuralgia of the face and scalp was treated by the application of heat along the cilio-spinal region.

CASE 12.—*Neuralgia of the Chest-walls and Extremities, associated with Sudden Convulsive Jerks.*

June 22, 1865, I was consulted by a nobleman, aged forty-five, on account of neuralgia affecting different parts of the body, the walls of the chest and the lower extremities being chiefly involved. The attacks generally came on suddenly, and usually lasted about fifteen hours, sometimes longer. The pains were of an acute, stabbing, and seemingly spasmodic character, and were often brought on by vigorous muscular exercise, especially deer-stalking, which the patient is very fond of, but which his attacks either cut short or prevented him from indulging in. He also suffered not infrequently from "jerks" or "starts." Though he is not robust, his general health is fairly good. I prescribed the application of the Spinal Ice-bag along the whole spine during three-quarters of an hour twice a day, and ferri et quinæ citratis, gr. v., each day during a few days at a time occasionally. When I saw this patient again, April 27, 1866, he informed me that he applied the Spinal Ice-bag as directed during several weeks at a time, at three successive periods, since he consulted me. He declared himself so greatly improved, that he had been quite free from his malady for long periods together, that when it had recurred, the pains had been comparatively slight, that he could continue violent exercises, including deer-stalking, without bringing on an attack, and that, in his opinion, had he continued the treatment regularly for a longer time he should have been completely cured.

CASE 13.—*Severe Uterine Neuralgia ; Intermittent Menstruation ; Headache ; Insufficient Sleep ; Pain between the Shoulders ; Shortness of Breath ; Cough ; Copious Expectoration ; Frequent Hæmoptysis ; Sickness ; Constipation ; Diarrhœa ; Pain, Weakness, and Coldness of the Lower Extremities ; General Coldness.*

Miss B., aged about thirty, suffering extreme uterine pain

during her menstrual periods consulted me June 26, 1865. Before the flow began the pains came on, and with such terrific severity that, as she said, she was obliged "to dance about the room." This agony usually lasted about five hours. During its continuance the flow stopped completely, and then on the subsidence of the pain recurred. Soon again, however, pain of less intensity was experienced, and again during its presence the flow ceased; and during about five days these subdued pains and the flow, which was scanty alternated with each other until at length they both finally ceased. During the presence of the severe pain she was always purged and sometimes sick. She often suffered from severe headache, chiefly at the vertex, but affecting the eyes, which were very painful, and which felt, she said, as if she could'nt keep them open. The pain was most oppressive in the mornings when she was often obliged to sit a couple of hours doing nothing; usually it cleared away after dinner. Her sleep was generally very much broken and unrefreshing. She had habitually considerable pain between her shoulders, difficulty of breathing, cough, copious expectoration, and frequent hæmoptysis. The surface of the chest was very tender, palpation over the front of it caused decided pain. Her appetite was feeble; during her catamenial intervals her bowels were constipated, and her urine was generally turbid. She suffered from general coldness, but her extremities were especially cold—her feet being the coldest. Her upper extremities were remarkably weak, so that keeping them raised or even raising them cost her an effort. She was also much troubled with what she called "rheumatic pains" in both legs. She began to suffer about six years previously—dysmenorrhœa being among the first of her troubles. I prescribed the application of the Lumbar Ice-bag to the lower part of the spine twice daily, and the following medicines:—Ferri ammonia citratis, gr. viii., bis. die. Olei morrhuæ, ℥j., bis. die.

July 3.—The patient said she was notably refreshed for about an hour after each application of the ice, and became quite warm—both hands and feet—in about five minutes after applying it, but felt cold again between the applications. Pulse, 92. Treatment as before.

July 10.—She reported herself decidedly stronger and better. She said, "the arms don't drop as they did." She complained, however, of a cold in the head and chest—the coughing and spitting being increased. Pulse, 108.

I directed that two teaspoonfuls of cod-liver-oil should be taken at each dose, that the iron and ice should be continued as before, and that she should apply an 8-inch Spinal Water-bag containing water at 115° to the cilio-spinal region each night when going to bed.

July 17.—The cold in the head and chest had subsided, and she had slept better. Pulse, 84. On the 14th, she began to menstruate; the flow began before the pain, and continued along with it; it had never done so before. In fact, the flow was continuous until the 16th, when she had no pain. On the 17th it recurred with very slight pain.

Sept. 12.—The duration of the agonising menstrual pains had now become reduced to two hours, and the pains themselves were decidedly less severe than formerly; she said, "I used to dance with pain, but I can lie down now." Her difficulty of breathing had lessened, she had gained flesh, her feet were always warm, her bowels were open daily, her pulse had fallen to 80, and she kept much better than formerly; she felt altogether better and stronger; she said that after using the ice for half-an-hour she became so uncomfortably warm that she could not bear it to the end of three-quarters of an hour as prescribed.

Sept. 26.—Had still a slight hacking cough, and her chest was still tender to the touch, but the pain between the shoulders was "much better."

Dec. 5.—The catamenia recurred four days ago; she had pain during only a few seconds at a time, "just a few times during the day." The flow continued each day this time. The pains between the shoulders had quite gone, and she had also "lost all those rheumatic pains" which she had had in the legs "for years without anything relieving them." She was still gaining flesh, and her muscles had become much firmer; she slept the whole of each night; she breathed much more easily, and her cough had ceased; she was still troubled, however, with expectoration, which, though much lessened, was "yellow and nasty," and sometimes tinged with blood; she also complained of the flow of "a nasty yellow and palish pink" fluid from her mouth during sleep. Pulse 76, full and regular; tongue clean; urine always clear, though sometimes very pale.

April 7, 1866.—The catamenia continued quite regular, and lasted four days. During the last two periods the flow had been quite normally copious, quite continuous, and without any pain whatever; she had lost her cough entirely for fully two months, but in the latter part of March it recurred with considerable severity and some hæmoptysis.

I continued to see this patient—about once a month—until the middle of 1867; in the beginning of that year she married; she soon became pregnant, and in due time the mother of a "fine boy." In 1868 she called upon me to report herself and to thank me for the benefit she had received from my prolonged treatment of her. Her lungs gradually became healthier and stronger during 1866-67, and on the occasion of her last visit she was able to

assure me that she was enjoying very fair health. She again called upon me (by my request), April 6, 1872, and reported that she had continued tolerably well during the interval since her previous visit; her lungs were still delicate; and she had been troubled at distant intervals with hæmoptysis, especially if distressed mentally, as she had been some months previously by the loss of a child; but on the whole, her health and strength had decidedly increased; she had had three fine healthy-looking children, and with the exception mentioned she was quite free from all the symptoms she originally complained of.

Case 14.—*Intense Pain and Tetanoid Paralysis of the Four Extremities; Diarrhœa.*

A boy, aged two years and four months, was brought to me, April 10, 1866, suffering from rigidity and immobility of the extremities. The arms were stiff, though still partially moveable; the thumbs were forcibly bent within the palms of the hands, and the fingers were drawn over them and fixed in a state of semi-flexion; the legs were extended and rigid, the feet being also firmly fixed as in *talipes equinus*. The child had seemed to become rapidly stout. All four limbs were swollen; the dorsum of each foot so much so as to make the skin tense and glistening. There were also *slight ecchymoses* on the feet. The sensibility was extremely heightened: touching the hands or feet caused the child at once to scream; in fact, he screamed if he saw his feet approached. He also suffered from diarrhœa.

I ordered the application of ice by means of two ten-inch Spinal Ice-bags, one being placed along the spine, and the other across the occiput so as to extend from ear to ear, thus forming an ice-pillow. The applications were continued about two hours, and were repeated in the same manner four times each day, during the early part of the treatment. Afterwards the applications were less frequent. The child was immediately soothed, slept well the following nights, and rapidly became generally calmer and better. On the 12th, the fingers had become more supple; the extremities could be freely handled without causing pain, and the diarrhœa had ceased. By the 25th, he could walk the length of a room, and by the 2nd of May, he was able to walk with perfect ease, and, indeed, had completely recovered, except that there was a slight eversion of the left foot, which subsequently disappeared.

Comment.—The severe inflammatory condition of the spinal cord characteristic of this case is one which, so far as I know, is

incapable of subjugation by any of the ordinary methods of treatment hitherto practised. I regard the swelling and allied symptoms which took place in this child, as an example of preternatural energy due to excessive nutrition of the intensely excited spinal cord.

During about a month previously to the date when the child was brought to me, he had seemed to become generally and rapidly stout; so rapidly, indeed, that the nurse felt concerned in observing this change, although she had no idea that it was a morbid one. As owing to the influence of the ice along the spine the extreme spinal hyperæmia became gradually subdued, the general swelling of the little patient steadily subsided.

It is stated above that "there were also slight ecchymoses on the feet of the child;" these, as well as the petechiæ appearing in various fevers, in some cases of cholera, and of epilepsy, and those together with the larger spots (vibices) so abundant in cases of the disease in question as to give it one of its many names, I regard as results merely of the intense action of those spinal nerves which are related to the elementary cells of the several parts of the organism and which preside over their nutrition. I apprehend that the morbid action of those nerves in these cases is merely an excess of their normal action, and that by this excess they render the elementary cells attractive of blood from the capillary system in greater quantities than they can assimilate, and thus occasion its effusion in spots, the number and size of which are probably proportionate to the vehemence, *within a given time*, of the activity of the nervous force concentrated at the several points where it thus manifests itself. Whether in addition to its action in this way, it also, by its preternatural power, effects a morbid chemical change in the blood immediately acted upon, is an exceedingly interesting question which, however, I think science will probably answer hereafter in the negative. But in any case assuming the reality of the cause here alleged, it follows inevitably that these sanguineous spots indicate no less decisively than do the symptoms already passed in review, the wisdom of applying ice along the spine.

Case 15.—*Persistent Pain in the Loins, associated with Diabetes.*

C. O., aged twenty-six, a carman, was sent to me by Dr. C. R. Drysdale, January 27, 1867. During the previous three or four months the patient had suffered almost constant and increasing severe pain *across* the lumbar region; stooping distressed him especially; he also suffered occasionally from headache; his skin

was dry and rough, and the back of the left hand was nearly covered by a large circular patch of diseased skin which was thickened into an elevated dry crust of a dark brown or reddish colour; his tongue was red, denuded of epithelium, sore, and covered with mucus; he was voiding about four and three-quarter pints of urine daily—urination occurring about every two hours; the urine contained sugar, and had a specific gravity of 1045; the patient's virile power was greatly impaired; his hands and feet were habitually cold—"in the cold weather very cold;" the bowels were prone to be constipated; there was marked tenderness along the lumbar and lower dorsal vertebræ. The patient's attention was not directed to the impairment of his health until the previous June; he then found himself thinner than before, and often troubled with thirst. In August he first noticed that he was passing a great quantity of urine.

The patient was under my observation two years; during the first fifteen months of that period ice was applied to his spine every day, the number and mode of the applications being varied from time to time as having regard to the changes in his symptoms and conditions I judged expedient.

As a full account of this case will be published elsewhere I shall give here only a brief statement of the results achieved by the Neuro-dynamic treatment to which the patient was submitted.

The pain in the loins having gradually and steadily subsided, quite ceased in October, 1867, and never recurred while the patient was under my care.

Headache after recurring with decreasing frequency ceased altogether in May, 1867.

The state of the tongue rapidly improved; in August, 1867, it had become thoroughly healthy both in feeling and appearance, and afterwards continued so.

State of the Skin.—Already by March 10, 1867, the back of the hand had become completely healed; by the end of the same month the skin of the hands had become much softer and moister than before; and in the beginning of June the skin was covered with a gentle perspiration.

Temperature of the Extremities.—By February 9, 1867, the feet had become warm; by May 26, the hands had become warm; and from this date forward a normally vigorous circulation, denoted by permanent warmth, was maintained in the hands and feet.

Thirst which distressed the patient a good deal had already abated considerably at the end of the first week of treatment: at the end of March his thirst was so slight that he thought it had nearly left him, and from that time forward he ceased altogether to be troubled by this symptom.

State of the Bowels.—They gradually became more regular and from the end of March forward they were opened every day.

Virile Power.—This was steadily regained; he reported, July 21, 1867, that it had considerably increased: in September he said he had erections in the mornings once or twice a week; and again, August 30, 1868, he gave a similar report.

Quality and Quantity of the Urine.—The urine remained saccharine throughout the whole period of treatment—the specific gravity generally oscillating between 1045 and 1035; on a few occasions it was as high as 1050, and again as low as 1030. When the patient came to me he was conforming to Dr. Drysdale's prescription, which was as follows:—"To live chiefly on meat, greens, and bran biscuits; to take no stimulants; to refrain from coitus; to take *a great deal of exercise,* and to have a drachm of cod-liver oil three times a day." During the first fortnight while the patient was under my care exactly the same treatment was continued; but to this was added the daily use of the Spinal Ice-bag, and at the end of the fortnight the amount of urine voided daily was reduced from four and three-quarters to three and three-quarters pints. Discontinuing the physical exercise and oil, but continuing the diet and Spinal Ice-bag, the amount of urine voided daily was gradually reduced to two pints and four ounces. Under this treatment persisted in several months the amount of urine voided daily did not exceed this small quantity. And so great was the healing influence that was exerted by the whole course of treatment that six months after it was completely discontinued, and the patient had lived on ordinary diet throughout that time, the amount of urine voided daily did not, as a rule, exceed four pints, no one of the other symptoms returned, and the patient expressed himself as feeling in every respect quite well.

Case 16.—*Infra-Orbital and Dental Neuralgia.*

Fräulein ——, aged twenty-five, consulted me February 3, 1867, on account of neuralgia affecting the infra-orbital and dental branches of the trifacial nerve. The pain was not confined to one side of the face, but was sometimes most acute on one side, sometimes on the other; it increased at night, and kept her awake the greater part of each night. She had been suffering in this way during about three weeks before I saw her. Her general health was good. The affected parts presented no trace of hyperæmia. I directed that the Spinal Ice-bag should be applied close to the occiput and along the cervical and the upper five or six dorsal vertebræ during an hour each night. It was thus applied during a fortnight. The patient experienced almost immediate relief:

after three days of treatment she felt and slept very much better; and before the end of the fifth day the pain had wholly ceased. Nearly a year afterwards she told me it had never returned.

CASE 17.—*Crural and Sciatic Neuralgia of Sixteen Years' Duration.*

I was consulted, June 25, 1867, by Mr. ——, aged forty-nine, who complained of excruciating neuralgia in the legs. The pain was of the ordinary tearing, shooting, and stabbing kind, sometimes in one limb, sometimes in the other, and affecting one heel almost continuously. This was often so acutely tender that he could not bear to touch the ground with it. Occasionally, when the pain was most excessive, the limbs jerked involuntarily. As a rule, the patient suffered most at night, and was thus so habitually deprived of sleep, that he marvelled to find his general health and strength continuing so fairly good as it was. He said that whenever he was able to sleep a little the pain increased. The malady came on about sixteen years ago, and had recurred at intervals ever afterwards. The intervals had gradually shortened, until at last he rarely had an interval of a day without experiencing some decidedly acute and shooting pain. Until the morning he came to me he had never been free of intense pain for nineteen days. On applying considerable pressure on each of the spinous processes, I could discover no tenderness whatever. The brain, lungs, bowels, and bladder were all healthy; the tongue was clean; the pulse 66, and, though rather feeble, steady. The patient was in the habit of drinking daily about a pint of sherry, which I advised him to give up. I prescribed the application of a Spinal Ice-bag along the lumbar and the lower half of the dorsal vertebræ during two hours twice a day (no medicine), and advised abstinence from wine or other alcoholic fluids. The patient did not believe that they exerted any influence on his malady, and was disinclined to give up his wine. He called upon me again July 12th, when he informed me that he had applied the Spinal Ice-bag only once a day on an average; that, "practically speaking," he had had no pain since he began the treatment; that until the day before his visit he had not suffered at all, and then only very slightly from pain below the left knee; and that he had slept well. I repeated my injunctions respecting the use of both the ice and wine, and prescribed potassii bromidii, gr. viij.; ammonii bromidii, gr. v., bis die. I advised perseverance with the ice, and abstinence from wine. The patient wrote to me, August 21st,—"I continue to receive great benefit from the ice application, and shall continue it." The pain afterwards

recurred in a mitigated form, but was greatly subdued by the ice, and, I incline to believe, would not have returned if the patient would have abstained from wine.

Case 18.—*Dental Neuralgia.*

A. W. B., a Russian gentleman, aged thirty, suffering from dental neuralgia, consulted me in September, 1867. The malady was chiefly confined to the teeth of both the upper and lower jaw, but no particular tooth or teeth seemed to be especially affected. The pain was intermittent, and so severe as to interfere seriously with the patient's daily occupation. No cause of the disorder, which had continued some weeks, could be discovered, and the face, so far from showing any sign of hyperæmia over the seat of pain, seemed cooler than normal. I prescribed the application of the Spinal Ice-bag along the upper half of the spine, and close to the occiput, forty-five minutes twice a day. In the course of the first day of treatment the pain was completely subdued ; the use of the cold was persisted in for some time, and during the remainder of the patient's stay in England he continued free from suffering.

Case 19.—*Pain and Swelling of the Extremities.*

Sept. 18, 1867, W. G., male, complained of pain in the left hand, and in the right knee and ankle, which were also considerably swollen, as was also the right hand, which, however, was not painful. His tongue was clean, his appetite was good, and his bowels were regular. I prescribed in the first instance the application of ice along the cervical region. On the following day the hand was already much better. I then directed the application once daily of the Spinal Ice-bag along the whole spine till the ice should be melted. By this means the pain and swelling were quickly and completely subdued.

In November of the same year the patient had another similar attack in the right hand and right knee ; and again by the use of the Spinal Ice-bag during three days all pain and swelling had vanished.

In January, 1868, I saw the patient again : he had continued at work during nearly the whole of the intervening period. He was much improved in general appearance, and informed me that when threatened at any time with an attack he averted it by using the Spinal Ice-bag.

CASE 20.—*Neuralgia over the Right Shoulder, between the Scapulæ, and along the Right Side of the Chest, together with a Feeling of Fulness and Heaviness of the Head, Headache, and Constipation.*

Mary B., aged fifty-one, first seen by me November 27, 1867. Complained of intense pain over the right shoulder, between the scapulæ, and along the right side of the chest. During the attacks of pain, which came on and went away suddenly, the flesh, she said, quivered and tingled; she felt her body bent down as if she could not move it for fear of the pain. She began to suffer in this way in July, and in November the pain became extremely violent, and what she called a "thick headache," which she said increased whenever she laid her head on the pillow, came on. This increased pain she described as "a double weight, a nasty heavy feeling." Her right leg was somewhat the weakest. She was much distressed too by frequent flushes which came over her. She had menstruated about four times during the two years before I saw her, the last time five months previously, and very slightly. She was treated by the application of the Spinal Ice-bag along the lower half of the spine during an hour twice a day; infusi calumbæ, ℥j., to be taken twice a day, and aperient pills to be used occasionally.

December 4.—This patient reported that after Nov. 28 she felt no pain whatever in the thoracic region, and that on the 29th and 30th she was free from pain of any kind. She said,—"I feel better altogether, and can now stand upright; the weight across the shoulders is gone." The bowels, she added, "have become more regular—without the help of the pills." At the time of her visit she had, however, some pain in the scapula, and the "thick headache," though lessened, had recurred. I requested that the treatment previously prescribed should be continued.

December 18.—She informed me that she was quite free from pain, except in the evening, when fatigued by her work; she looked wonderfully better, and as she said, she "felt much stronger, and not so nervous." She also stated that the "heaviness of the head and the flushes," though not quite gone, had much lessened. Her appetite was good, but her bowels were "still rather obstinate." She remarked that the ice did not distress her in the least, but that during the last fortnight she had only been able, in consequence of her work, to use it during an hour each night. I ordered her to continue doing so.

December 28.—She said she continued free from all neuralgic pain, and that her only trouble then was "heaviness of the head, fulness and headache, as if all the blood went to the head." I

ordered the ice to be restricted to the lower third of the spine, and to be applied during an hour twice a day.

January 15, 1868.—Still had fulness of the head and flushings, but no headache.

January 29.—Reported herself perfectly free from neuralgia, and complained only of rushing of blood to the head, which occurred some twenty times a day. I prescribed the application of ice along the lower two-thirds of the spine during an hour twice a day, and five grains of the pill of aloes and myrrh occasionally.

March 18.—She reported herself quite well, and looked so, even the flushing had almost wholly subsided.

Case 21.—*Infra-orbital and Mental Neuralgia, with Headache.*

F. M., female, aged twenty, consulted me in 1867, when she was suffering from acute facial neuralgia, the chief foci of which were the infra-orbital foramen and the mental foramen of the right side. The extreme pain came on in fits, sometimes at eight a.m., sometimes at two p.m.; but between the paroxysms the face continued to ache, and at times the patient had pain at the back of the head. She had suffered in this way about a fortnight before coming to me, and had had several similar attacks during the preceding year. Judging from the collateral symptoms that this was a case in which the use of heat was indicated, I prescribed the application of the double-columned hot-water-bag along the lower cervical and upper dorsal vertebræ early each morning, before the recurrence of the paroxysm, and at any other part of the day when the pain threatened to come on. The malady was immediately subdued: no distinct paroxysm occurred after the first application of heat; all pain rapidly and completely subsided, and since that date has never returned.

Case 22.—*Uterine Neuralgia; Deficient Menstruation; Dysmenorrhœal Nausea and Vomiting; Leucorrhœa; Headache; Constipation; Coldness of the Extremities; Varicose Veins; Ulceration of the Left Leg.*

Mrs. C., aged twenty-eight, first seen by me December 5th, 1867, suffered from extreme dysmenorrhœal pain during the whole period of menstruation, which lasted only between two and three days, and was very scanty—not more than three napkins being needed during a period. She vomited more or less throughout each period, and suffered much from nausea. During

the catamenial intervals she had leucorrhœa. She was also greatly troubled with headache. Her bowels were very constipated—she often passed three days without action. Her extremities were habitually cold—the legs and feet were excessively cold, and their veins were markedly varicose. A few weeks before I saw her she left St. George's Hospital, where she had been admitted on account of an extensive ulceration over the middle and anterior third of the left leg. While there the wound was nearly healed. When she consulted me it had opened again in the form of several small ulcers of about the diameter of a pea on a dark red or purple ground, having a diameter about equal to that of the top of a tea-cup. I prescribed the systematic use of the Spinal Ice-bag and the following medicines :—Ferri et quinæ citratis, gr. v., bis die ; pilulæ aloes et myrrhœ, gr. v., alternis noctibus.

Experience in this case exemplified in a wonderful manner the efficacy of Neuro-dynamic medicine. The dysmenorrhœal pains ceased entirely ; the menses became normally copious ; the nausea and vomiting which formerly accompanied them were no longer experienced ; the patient became completely freed from headache and leucorrhœa ; the functions of the bowels became normal ; and the extremities thoroughly and permanently warm. But what was especially remarkable in this case was the complete cure which was effected both of the varicose veins and of the considerable ulceration of the left leg. The patient was a laundry maid, for whom, by request of her mistress, I procured admission into St. George's Hospital, where she had the advantage of being treated by Mr. Prescott Hewitt. While there, the wound in the leg lessened so considerably as to become almost, but not quite, completely healed ; and being considered sufficiently well to resume her duties, she was discharged from the hospital. But as she had to stand the whole, or nearly the whole, of each day while at her work, the wound in her leg soon became as large as before, and she suffered at the same time from the other symptoms described above. Her mistress then requested me to treat her, and I did so, while she continued her daily work. The great increase of circulation produced in the lower extremities by the influence of the Spinal Ice-bag effected a *complete cure of the wound in the leg, although the patient was standing on it each day ;* whereas with all the advantage of entire rest in a hospital, the treatment usually resorted to in such cases, while effecting great improvement, did not succeed in healing the wound completely, and the benefit conferred lasted only a little longer than the patient's stay in the hospital. But, what was still more surprising and satisfactory, the same " great increase of circulation " induced by the Spinal Ice-bag caused a permanent subsidence and disappearance of the patient's varicose veins.

CASE 23.—*Facial and Infra-mammary Neuralgia; Headache; Persistent Vomiting; Dysmenorrhœa and Coldness of the Feet.*

December 18th, 1867, Frances Schuler, aged twenty-seven, came under my care at the Farringdon Dispensary. She complained of painful pressure at the top of the head, and of acute pain over the forehead and in the right eye. She described the feeling at the top of the head as a "pressure, just like a weight of lead, with great but dull pain."

Both the feeling at the top of the head, and the acute pain over the forehead, and in the right eye, came on in paroxysms. During each attack the forehead swelled very distinctly, and she felt "as if a string at the back and inside her head were drawing her right eye backwards." She shed tears copiously from the same eye. Her sleep was much impaired by her sufferings. She complained also of infra-mammary pain recurring several times a week, and often lasting an hour at a time: sometimes, too, she had lumbar pains for a day together. Both eyes, but especially the right one, had lessened and sunk.

She assured me most positively that since childhood she had vomited every morning in her life, and that her mother and two sisters were affected in like manner. Her vomiting was always increased during her menstrual periods.

Formerly she used to menstruate during seven or eight days, and meanwhile suffered much pain in the back and in the womb; but since she had been liable to neuralgic attacks, her menstrual periods had not exceeded three days, during each of which she had needed only one napkin, which was, she said, very slightly stained. Her feet were habitually very cold. I prescribed the application of ice along the dorso-lumbar region during an hour twice a day.

December 28th.—The patient found that the ice would send her off to sleep at any time: the fourth application caused her to sleep three hours. The first application relieved her head before the bag had been on an hour. After the third application the pain in the forehead ceased; and on the fourth day of treatment she already felt quite well. The pressure and pain at the top of the head, the swelling and pain over the forehead, the pain in the eye, the lachrymation, and the infra-mammary pain, had not recurred; *she had not vomited since the ice was applied the third time.* Her feet had become "nice and warm," and she said that she felt, on the whole, more comfortable than she had been for some years past. Still, after all pain had ceased it came on again at the right side of the back of the head, but was subsiding

at the above date, when I ordered the treatment to be continued.

January 8th, 1868.—The patient stated that she began to menstruate on the 3rd inst., and ceased on the 6th, that the flow was rather more copious, and of a rather brighter colour than previously. She still used only three napkins, which, however, were more saturated than of late they had been wont to be.

February 15th.—The patient had not been very steady with her treatment, and some of the symptoms above mentioned had recurred, but with less intensity than before. She was sick about every other morning; she felt again a weight at the top of the head, but her forehead no longer swelled as it used to do during the previous attacks. She complained of pain at the bottom of the sternum, below the left breast and over the left ovary. To continue the ice as before, and to take Infusi cinchonæ, ℥j., bis die.

March 4th.—The pain, although variable, had not yet gone quite away. However, the patient found herself greatly improved. She began to be unwell on the 1st inst., and was still so: the flow was more copious, and of a better colour. The forehead did not swell any longer. The vomiting, which had tormented her every morning of her life, was stopped: but she had still, at intervals, a feeling of sickness, and I advised her to continue for some time longer the use of the ice, which about a fortnight previously she had ceased to use. I never saw her afterward.

CASE 24.—*Neuralgia of the Right Side of the Head, Face, Neck, and Tongue, and of the Right Upper Extremity, together with Headache, Sickness, and Coldness of the Feet.*

Mary Ann T., aged forty-four, who consulted me for the first time December 28, 1867, was suffering from neuralgia of the right side of the head, face, and neck, and along the right shoulder and arm, extending to the fingers. The right half of the tongue was also affected. The pain, which was exactly limited to the median line, was described by the patient "like as if something is pulling the flesh off the bone—it's so dreadful, and sometimes as if the parts were screwed up in a vice." The most acute pain was just above and outside the outer angle of the right eye. At this part she experienced dreadful twitchings, which came like electric shocks, and made her start fearfully. The focus of pain was much hotter than the surrounding parts; but there was no notable lachrymation. The pain was greatly increased by the local application of cold. Her first attack came on about four years before I saw her; since then she had had four very severe attacks, each in the winter season; but she had had many smaller

attacks generally during the autumn. She had brain fever about twenty years before I saw her, and was a great and habitual sufferer from headache, from which she was scarcely ever free; she had a feeble appetite, was often troubled with sickness, and complained especially of coldness of the feet: she said,—"Oh, they're dreadful, sir! I never know what it is to have them warm now." She continued to menstruate, but very irregularly; she suffered from profuse menorrhagia, accompanied with "very great pain" —was often "unwell" a fortnight together, and during the whole time the menstrual pain continued. Notwithstanding these various disorders, her bowels were opened regularly each day. I ordered the application of ice in a twenty-two inch Spinal Ice-bag along the whole spine during forty-five minutes twice a day.

January 1, 1868.—This patient had applied the ice as directed five times, but complained that it distressed her extremely both in the thorax and abdomen—especially towards the end of each application. The neuralgia had, however, greatly lessened; the tongue was much better, and the dreadful twitchings had quite ceased: she had had no sickness at all. I then ordered the Ice-bag to be wrapped in flannel, and to be applied thirty instead of forty-five minutes each time. The patient immediately and rapidly improved; and, January 15, informed me that she had not had "a bit of neuralgia" during the whole of the preceding week. I saw the patient afterwards, and the pain had not returned.

CASE 25.—*Neuralgia of the Four Extremities, and of the Left Side of the Chest; Backache; Headache; Excessive Irritability of the Bladder; Deficient, Intermittent, and Painful Menstruation; Bearing-down of the Womb; Leucorrhœa; Habitual Coldness of the Feet.*

H. E., aged thirty-two, a very intelligent woman, consulted me on January 4, 1868, at the Farringdon Dispensary, on account of great pains in all the four limbs, but most especially in the fingers and toes; of continuous pain in the left side over a fixed spot not larger than half-a-crown; and of a pain which she had had, "on and off," for years, between the left shoulder and the spine, and in the shoulder itself. She also complained of headache, which came on each morning; and of dreadful, and almost continuous, aching in the lower part of the back—so severe, that often she could not stand upright.

She was troubled with excessive irritability of the bladder, often involving the necessity of urinating about every five

minutes. This trouble had continued since her last confinement, which occurred about eighteen months previously.

The menses were very scanty, lasting but two days, and needing the use of only two napkins. They were preluded by leucorrhœa nearly as much, she said, as her "regular discharge," and continuing a day or two after it stopped. She also suffered from bearing down of the womb, and from habitual coldness of the feet. The bowels acted regularly; there was excessive tenderness along the lower half of the spine.

I prescribed as follows:—℞ Ammonii chloridi, gr. v.; Infusi calumbæ, ℥j., bis die; and the application of the Lumbar Ice-bag, placing the bottom of it on a level with the fourth lumbar vertebra, during forty-five minutes, twice a day.

January 11th.—The patient had used the ice only four times, but she reported the pain in the limbs to be so nearly gone that she had scarcely felt it once; she said she had found the Ice-bag unpleasant in the day-time, but a great comfort to her at night. I advised her to use it at night only, and to continue the medicine as before.

Jan. 18th.—She had borne the ice quite well; she made water then about every hour; the head and limbs continued clear of pain; the pain in the left side was less acute, and sometimes went quite away; the pain in the back—her worst trouble—was wonderfully relieved. Appetite improved.

February 5th.—Began to menstruate on the 31st ult.; the flow continued day and night during three days, and was much more copious than usual. She used the ice ninety minutes twice a day during each of the three days of menstruation without any discomfort whatever; she said her back was wonderfully better.

Feb. 22nd.—She reported herself on the whole much better: she made water less frequently again; and she added,—"I don't have that distressing bearing-down feeling as I did. I feel the ice such a relief and refreshment for several hours after I have used it."

March 14th.—She had not used the ice during the previous ten days; she continued, however, quite free from neuralgia; she had suffered from a little cough for about a fortnight. On the 8th March she had slight hæmoptysis (while in church), and again on the 13th. She felt a fulness of the chest at the right of the lower part of the sternum. She then told me for the first time that she spat blood twelve years ago. Pulse feeble and irregular. I prescribed—Acidi nitrici diluti, ℥x.; Quinæ disulphatis, gr. j., ter die.

March 28th.—The patient continued free from neuralgia; hæmoptysis had not recurred, and the cough had subsided.

May 6th.—She remained free from all pain; she had men-

struated a few days previously, and she remarked that the menses, which used to be scanty, intermittent, and painful, were now copious, continuous, and painless.

May 13th.—The patient had had no recurrence of pain of any kind. The leucorrhœa, which formerly preceded menstruation, had quite ceased to do so; and all the other symptoms, on account of which she consulted me, had subsided. At this date the patient reported herself well, and therefore ceased attendance at the Dispensary.

October 28th, 1869.—She came again in order to obtain advice for her child. She looked extremely well, and said that she had had no relapse, and that she had never enjoyed such excellent health for many years as she had done since May, 1868.

Case 26.—*Dental Neuralgia.*

H. E., female, aged twenty-one, suffering from violent pain, spreading over the teeth and gums of both the upper and lower jaw, consulted me January 17, 1868. The pain was most intense in the lower jaw, and on the left side. She had headache also. The forehead and cheeks were notably hotter than normal, and the patient complained of great heat in the roof of her mouth, as well as in her gums, which were swollen and sore. During the previous week she had had several teeth stopped with gold, and one of them—the left upper incisor—subsequently became most especially painful, with swelling, and threatenings of an abscess at its root. I prescribed the application of a ten-inch Spinal Ice-bag across the occiput. The pain was annulled on several occasions by this treatment. But the tenderness of the incisor tooth just mentioned persisted, and the new stopping in it kept up and increased the irritation. The pain throughout the whole of the parts described came on in the same way as before, but more violently; now the re-application of the Spinal Ice-bag across the occiput failed to subdue it, and it became intolerably violent. In despair, the patient tried the application first of cold, and then of heat, directly to the seat of pain, but without obtaining any relief. On the 19th, Sunday, finding her in this state of extreme suffering, and knowing that she could not on that day go to the dentist and have the stopping taken out of the tender tooth, I applied a double-columned Water-bag, containing water at 120° Fahr., over the cilio-spinal region. The first application lessened the pain, and the second took it away. The patient's previously hot and aching forehead became perceptibly cool and moist meanwhile, and she felt a strong inclination to sleep. During the

second application she remarked that the inside of her mouth had become much cooler, and the temperature of her cheeks fell so much that they felt cooler than normal. This was about 9 p.m., and she continued free of pain about two hours. Eating her supper brought it on again, when it was again subdued by the bag as before. About twelve o'clock she went to bed, and, as I had requested, applied the Spinal Water-bag by lying upon it. She soon went to sleep on the bag, and continued sleeping between three and four hours, after which the pain recurred. She applied heat again, as before, and again slept about an hour. She was then awoke by a fresh attack of pain, which seemed worse than before, and which continued till daylight, when she got the Water-bag refilled, and again applied it. It quickly soothed her, and enabled her to sleep; and when she awoke she was free from pain. In the course of the day she went to the dentist, who, instead of unstopping the tooth mentioned above, stopped three others. The patient's sufferings were afterwards aggravated; and in the evening of the same day I prescribed the continuous use of the Spinal Water-bag (at 120° F.) to the cilio-spinal region, and simultaneously the application of a Spinal Ice-bag across the occiput, or, if found more soothing, over the seat of pain. I also prescribed a drachm of sulphate of magnesia, to be taken at bed time. The patient obtained almost complete freedom from pain during the evening, when using the cold and heat together; but soon after they were omitted she was reminded that her enemy was only at bay, and feared fresh attacks during the night. She therefore re-applied the Spinal Water-bag, and lying upon it after going to bed, soon fell asleep, slept all night, and woke up the next morning quite free of pain. By immediate recourse to the same treatment, modified as seemed desirable, whenever the pain came on again, its tendency to recur was at that time subdued, notwithstanding the fact afterwards ascertained that an abscess was being developed at the root of the left upper incisor tooth. Ultimately this tooth was unstopped, the pus escaped, and the pain, which had been reflected on to the sound teeth of the lower jaw, did not then recur.

CASE 27.—*Neuralgia of the Hands and Feet; Numbness and Partial Paralysis of both Hands; Hæmorrhoids; Coldness of the Body generally, and of the Lower Extremities especially.*

A. W., male, aged fifty-six, first seen by me January 20, 1868, when suffering from severe pain in both hands and both feet. He also complained of numbness in both hands. The pains which

were restricted to the hands and feet were of a shooting character, and came on with astonishing suddenness—often, the patient said, as if he had received "a violent blow upon the nerves." The pains were quickly induced by motion of any one of the four limbs. Pains shooting to the tip of the little finger, and sometimes along the ring finger were immediately produced if pressure were made on the ulnar side of the dorsum of either hand. Pressure on the radial side of the dorsum of the left hand produced pain in the forefinger. The pain in the feet began at the metatarso-phalangeal joint of each big toe and flew upwards as far as a little above the internal malleoli. Stretching out his leg, for example, when putting his trousers on caused the patient acute pain in the feet. The hands had become weakened as well as numb: he could only extend his left hand partially, and his fingers were so weak that he was disabled from doing his usual work on that account alone; but, in fact, he suffered such severe pains and so constantly when moving his limbs, especially if he made any effort, lifted anything requiring the slightest strain, or even suddenly twisted the hands slightly that he was almost disabled from continuing at his employment—that of a piano-maker. He began to suffer in this manner about ten months before he consulted me. The pains came on in the hands first, and in the feet a few weeks afterwards.

He did not suffer from headache; could stand equally well, and for a considerable time, on each leg, and there was no tenderness in any part of the spine. Pulse, 75; bowels open daily. He was troubled with hæmorrhoids which had continued "fifteen or twenty years." Reproductive organs healthy. He suffered very much, he said, from general coldness, and had become more "chilly" than he used to be. His feet were often cold for a couple of hours after he went to bed, he "could hardly sleep for them." The sensitiveness of his hands as well as his visual power was much below the normal standard. In the right palm he could not feel the two points of the æsthesiometer until they were eight lines apart, and not until they were twelve lines apart in the left. Without glasses he could not read smaller test-type than $5\frac{1}{2}$ with either eye.

Eighteen months before he consulted me he became a teetotaller; previously he had been in the habit of drinking freely. Possibly, this habit may have contributed, at all events, to originate his neuralgic malady, and probably domestic misery, of which his wife's habitual drunkenness was an element, may have operated as its exciting cause.

The patient was sent to me by another physician who had treated him by means of drugs but without avail. I prescribed no medicines at all, but treated him exclusively by means of the

Spinal Ice-bag, which owing to the presence of hæmorrhoids had to be applied with especial care.

January 29.—The pains in all four limbs had already much lessened, and pressure in each hand caused only very slight pain—scarcely any in the left hand. He could move his hands violently without producing any pain at all. The pain in the right foot had shifted from the inner to the outer side, and the motion of stretching out his legs—when putting on his trousers for example—caused him only "very slight pain, indeed." He said, "I've become generally warmer all over, just as I used to feel several years ago; directly I put the ice on, my feet become warm, warmer than I can get them by the fire." The tingling in his hands had lessened, and their sensitiveness has considerably increased. In the left palm he had become enabled to feel two points at four lines apart, and in the right at only three lines apart! He could read test-type $4\frac{1}{2}$, though with some difficulty.

February 13.—The pains were still more lessened and were shifting about. He could thrust out both hands and both legs violently without producing any pain at all. His hands, especially his fingers, had become much stronger as well as more sensitive, a beneficial change proved to him he said by the fact that he could scrape the top wood of the grand pianos far more effectively than he had been able to do for months previously. He said, "I continue to keep quite warm: while watching outside Broadwood's premises on a very cold night I was very warm all night," whereas previously, as he assured me, when watching on less cold nights and in just the same clothes he was very cold. Could read test-type $4\frac{1}{2}$ easily, and $3\frac{1}{2}$ with difficulty.

Feb. 27.—The patient reported, "There is not the slightest pain anywhere while I remain still; I never feel it." He could now extend the left hand vigorously and completely. He continued warm.

August 5.—At this date the patient informed me that the pains in all four limbs had gone and were not now inducible by movements. His thumbs had become much stronger, the re-acquired sensitiveness of each hand had continued; he ate well, and he slept "a great deal better" than formerly. I then prescribed—Ferri et quinæ citratis, gr. iv., bis die. He had continued the use of the Spinal Ice-bag until this date. I regret that during the previous five months I had kept no record of the progress of his recovery, and especially that when I saw him at this date I did not note the exact degree of his visual power—a point of great therapeutical interest.

April 1, 1872.—I wrote to this patient begging him to call upon me, and he did so at this date. He was quite free from

both pain and numbness, and his hands were thoroughly strong. He said, "Nothing has ever been the matter with me since you treated me except last summer when I had my great toe smashed. I went to the hospital and was at work again in three weeks." No neuralgia came on. He said that he had ceased to be troubled with piles, that the bowel merely came down a little occasionally when he was at the water-closet, but that it was easily replaced and caused him no inconvenience. His bowels had acted daily with remarkable regularity. He had continued warm all over. He began his report of himself in these words: "One very curious thing has happened to me, I used to have very cold feet, I may call them excessively cold, in bed; since I've used the ice I never have a cold foot!"

CASE 28.—*Neuralgia of the Back and Shoulders; Itching and Swelling of the Hands; Headache; Giddiness; Cough and Copious Expectoration.*

January 22, 1868.—Eliza H., aged thirty, married, complained of great pain in the head, with frequent giddiness. She had suffered in this way almost every day for some hours, upwards of a month, and both the pain and giddiness were increasing. She was also much troubled with pain and aching over the shoulders—most over the left, also on each side of the lower cervical and upper dorsal spines, where there was some swelling and great tenderness. She said that she had aching also of the four limbs, of the kind caused by fatigue. These pains were intermittent, but not periodic. "At one part of the day I feel," she said, "very well; at another I can hardly move." About three times a week for several weeks past her left hand had swollen, and had become hot, and red, and numb,—"just as if," she said, "I were going to lose the use of it." It was not painful; but before it swelled it itched for a few minutes. The swelling lasted upwards of an hour. "It had never been quite right," *i.e.*, it had always felt more or less numb since it began to swell. Had a troublesome cough, with copious expectoration. Bowels fairly regular. Urine pale. Menses healthy. Feet always very cold. I prescribed the application of ice along the upper third of the spine thirty minutes twice a day; also Ammonii chloridi, gr. v.; Infusi calumbæ, ℥ s., bis die.

Jan. 29.—The cough and quantity of mucus expectorated were decidedly lessened. I then requested the ice to be applied along the upper two-thirds of the spine, and prescribed Infusi calumbæ, ℥j., bis die.

February 1.—The aching of the limbs had ceased; the itching

and swelling of the hand had ceased, but had appeared in the face and one knee. I advised the application of ice in each cell of the 20-inch Ice-bag forty-five minutes twice a day.

Feb. 15.—Had been unable to provide herself with ice during the last fortnight, and was suffering much in the same way as when she first consulted me. She promised faithfully to use the ice as prescribed. ℞ Infusi cinchonæ, ℥ss., ter die.

Feb. 26.—Had used the ice regularly as ordered. All the symptoms complained of had subsided, and the feet were warm ; but she complained of great pain over the anterior part of the crest of the right ilium. Bowels constipated. There was still great tenderness over the cervico-dorsal vertebræ. I requested her to apply the ice as before, but from 90 minutes to 120 minutes twice a day ; to continue the mixture, and to take aperient pills when needful.

March 18.—The pain in the head and giddiness were very much better, but had not wholly ceased. The pain and aching over the shoulders and each side of the spine, and the aching of the limbs were quite gone, the cough and expectoration also. No swelling or redness had recurred, and the numbness was no longer felt. To continue the treatment as before.

April 18.—Reported herself well. Feet warm. Treatment discontinued.

CASE 29.—*Paroxysmal Neuralgia of the Head, Face, Mouth, Throat, and Extremities ; Swelling and Tenderness of the Scalp ; Convulsive Twitchings ; Numbness ; Weakness of the Right Side ; Headache, Dimness of Sight, Mental Confusion, and Loss of Memory ; Constipation of the Bowels ; Excessively Frequent Micturition ; Defective and Painful Menstruation ; Prolapsus Uteri ; Habitual Coldness of the Extremities.*

January 25, 1868.—S. T., female, aged forty, married, consulted me at the Farringdon Dispensary, on account of a remarkable complication of neuralgic troubles. She suffered from neuralgic paroxysms every day ; they were worst in the head and face, but involved the four limbs also. The pain of the head was chiefly on the right side, reaching to the vertex, and in the forehead. She had often acute, throbbing headache, and at the same time superficial shooting and burning pains over the scalp, which, during the attacks, was notably swollen—especially in the forehead—and very tender. The pain and burning heat often invaded the roof of the mouth and the throat. During the

paroxysms of "plunging, shooting pain," as she described it, she suffered from violent twitchings, which, she said, were "just like the cramp," over the right side of the head and chiefly in the temple. The pain often extended along the right side of the neck, arm, and fingers; she had cramps in the left hand—generally once or twice a day, and frequently in the night. When the pain passed down the arm, the muscles of the right leg, and especially the flexors of the toes, were also twitched or contracted, and the leg felt heavy. The left leg was becoming affected in the same way. The patient said that when she got up in the morning her forehead began to swell, but without pain; that in about an hour afterwards the pain came on, and usually continued excessively violent during about a couple of hours. Simultaneously with the swelling of the forehead the sight of both eyes became dim; the dimness lessened when the pain subsided. She said that the feeling in the roof of the mouth was "like the cramp," that she felt a distinct twitching in the right side of it, and that drinking warm liquids pained her in that part. She complained that the hands and feet were frequently numb. Her sufferings had so affected her head, that her mind had become seriously impaired. She experienced great mental confusion and loss of memory; she said,—"I've frequently thought I should go out of my mind with my head. I can scarcely recollect anything. I've often given people wrong change at the counter (she kept a small shop), and trembled so I've not known what to do." She was in the habit of sitting for hours without speaking to anybody. When the attacks came on she disliked her husband and children, and wished them away from her. She began to suffer in the head about two years before I saw her: the attacks commenced with a burning pain at the top, gradually increased in severity, and during the previous twenty months she had never, she believed, passed a whole day without pain. She suffered from excessive coldness of the feet and knees. She found that putting her feet in warm water relieved her head. Menstruation was regular, but extremely defective and excessively painful. She suffered from prolapsus uteri, on account of which she began to have medical advice two years previously. She made water about every ten minutes in the daytime, and was obliged to get up frequently in the night to do so. This trouble had lasted about three years. Tongue fairly clean, bowels constipated. Pressure on the spines of the upper cervical vertebræ caused overwhelming pain, and also a distressing feeling in the roof of the mouth and down the throat. When the pressure was applied on the third vertebra, it affected the throat lower down than did pressure on the first and second. Pressure on the lower cervical vertebræ did not cause pain, but there was great tenderness between the scapulæ, and pressure there caused her

also to feel the distress in the throat, and induced great faintness. I prescribed as follows :—℞ Misturæ cinchonæ, ℥j. ; potassii iodidi, gr. ijss., bis die. Apply ice during forty-five minutes twice a day along the lower third of the spine.

Jan. 29th.—The pain in the head and arm was not quite so severe, and the roof of the mouth was better. The patient thought her feet "had seemed once or twice to come warm, and they were fuller than they had been." Treatment as before.

February 5th.—The burning pain at the top of the head and the pain in the face were less severe ; the pain in the arm and the pain and burning in the roof of the mouth and throat were again lessened, and she had less throbbing than before. I said to her,—"The ice did not make your feet cold, did it ?" "No, sir," she answered, "it did not ; indeed, they are rather warmer than they were—my hands too ; and my appetite has been very good this last week. I have seemed better altogether. I've felt relief of the headache in ten minutes after I've put on the ice." I advised her to continue its use during sixty minutes twice a day, as last ordered, but also to apply an Ice-bag across the occiput, from ear to ear, each morning an hour before the attack came on.

15th.—The swelling, as well as the pain down the front of the face, was lessened ; "the cramping pains" of the right arm were gone, there being only a "numb feeling" left. The patient found that the Ice-bag across the occiput gave her great relief. She had menstruated during the previous week, and "more plentifully than for the last two years." The flow continued during three days, and was accompanied with much less pain than usual. The ice was applied along the spine throughout the period during sixty minutes twice a day, as usual, and was found to be "a great comfort." She said,—"The ice is beautiful. If you are lying in bed with the ice on, it's wonderful how warm your feet get ! You don't notice it so much when you're up and about. My hands, too, are not so cold ; I seem altogether very different." Treatment as before.

22nd.—The cramps in the hand were reduced to a "slight twitching only :" the patient was now obliged to pass water only three or four times a day, and she "very seldom" got up in the night to do so. She was requested to continue the ice as before, and to take Infusi calumbæ, ℥j. ; potassii iodidi, gr. ij., ter die.

27th.—The hands and feet were less numb, and the legs felt lighter ; the headache was steadily lessening, and the twitchings were nearly gone. Yesterday a paroxysm was cut short within five minutes after the application of ice across the occiput. She said,—"It's wonderful the benefit I've received ; I used n't to know scarcely what I was doing,—now I am altogether much more clear." I advised her to omit the medicine, and to apply

the Spinal Ice-bag along the whole spine twice a day during sixty minutes.

March 7th.—The paroxysms, which before treatment came on about 9 a.m., had become retarded till about noon. The numbness of the hands and left arm was much lessened. The right hand was well, and there was only very slight numbness in the left hand. Before treatment the left leg was both heavy and numb from the hip to the foot inclusive: at this date the foot alone was numb, and that only while she was walking. She was requested to continue the ice as before, and to take Ferri ammonio-citratis, gr. iv., bis die.

14th.—The attacks at this date kept off until 3 or 4 p.m., and were less severe than they were a week previously. Bowels regular without aperients. She made water not more than four or five times in the twenty-four hours. Treatment as before.

21st.—The neuralgia of the head was still lessening, and the attacks did not recur till 4 or 5 p.m. "The womb," she said, "is much stronger; it does not come down as it did." Her head continued clearer. She said the ice made her long to go to sleep in the daytime, but that her business prevented her. Treatment as before.

28th.—The two previous days had been passed wholly without pain; it was then two years since she had had a like experience. Appetite improved; bowels open daily. She said,—"The Ice-bag has, I think, regulated the bowels, for they were always confined, very often a week together. And I sleep better; not so heavy in the head. I used to be very heavy in the head. The numbness has quite gone from the hands." Treatment as before.

April 18th.—She had been several days without an attack, "and when one comes on," she said, "it's merely a passing over the head, and lasts only about fifteen minutes." She menstruated about a fortnight previously, during a full week; the flow was much greater, and the pain much less than formerly. The numbness in the head was going. ℞ Ammonii bromidi, potassii bromidi, ana gr. v., terdie. I requested her to continue the ice as before.

May 2nd.—She was in every respect better; she had had only three attacks during the previous fortnight; she was stronger, and had better appetite and spirits than she had had for eight years before. She remarked,—"I really don't think I shall ever be able to do without the ice, it is so comforting." ℞ Ferri et quinæ citratis, gr. v., bis die. Ice as before.

13th.—Went many days without pain at all in the head—was, in fact, "very nearly free from pain altogether." Her mind was quite clear, and her memory so improved that she said, "I can

recollect anything now." She had, however, still some temporary swelling of the scalp "most days." All twitching, and nearly all numbness, had ceased. The right side, which had been very weak for seven or eight years, seemed, at this date, as strong as the left, except when she walked far, or made great exertions. She menstruated copiously the previous week, and without any pain at all. ℞ Syrupi ferri iodidi, ℥j., bis die. Ice as before.

20th.—She continued quite free from pain: she had passed three weeks without having a severe attack. Her sight was greatly improved. The numbness was gone entirely, unless when she walked. Her complexion, which had been dark and sallow, had become remarkably clear, and she looked thoroughly well. She said,—"Recovery from my long illness seems like as if I were waking from a dream, for I was scarcely conscious when I came to you first." Treatment as before.

I saw this patient a few times more during the summer. She continued free from attacks, and reported her health quite restored.

CASE 30.—*Neuralgia of the Right Side of the Head, Face, and Neck, and of the Right Upper and Lower Extremity, associated with continuous Aching across the Sacrum, Partial Closure of the Right Eye, Lachrymation, occasional Unsteadiness in Walking, Extreme Coldness of Both Knees, Heavy Sleep, and unduly Frequent Micturition.*

February 26, 1868.—William E, complained of neuralgia over the right side of the head, face, neck, shoulder, and in the first phalanges of the middle and ring fingers of the right hand; also of twitchings or spasms of the right side of the face and head, sometimes almost closing his eye, which, during the paroxysms, shed tears. He was also troubled with great, continuous, and deep-seated aching in the sacral region. The pain extended along the outer half of the thigh, into the right knee, and sometimes along the right leg and foot to the toes. He also suffered in the right hip-joint, and sometimes in the left. The pain came very suddenly in the right knee, and sometimes he was unsteady in walking, especially when going down stairs. Both knees had been extremely cold during at least twelve months previously, in summer as well as in winter. He made water about ten times a day, and had a distressing feeling in the pubic region just before urinating; tongue furred; bowels generally open, but at that time rather constipated; pressure on the third, fourth, and fifth lumbar vertebræ caused great pain. The patient began to suffer from neuralgia about seven years previously, and had

had numerous attacks. I prescribed—Pil. colocynth. cum hydrarg., gr. v., p. r. n.; and, Ammoni chloridi, gr. v.; Infusi gentianæ, ℥j.; bis die.

March 4th.—Felt a little better; but, on the whole, the neuralgia was much the same: there was no decided improvement. I ordered the Spinal Ice-bag to be applied along the whole spine sixty minutes, twice a day; the mixture to be discontinued, and the pills still to be used when the bowels were confined.

March 11th.—The patient was completely free from neuralgia in all parts of the body, except the left hip and thigh down to the knee, in which it had become worse. The bowels were "very regular without medicine." Was passing water only about four times a day, and had lost the distressing feeling in the pubic region. The knees felt much better. He said,—"I've noticed particularly that they've become much warmer."

I prescribed the application of ice along the lower half of the spine sixty minutes, twice a day, and the following medicine:—Potassi. bromidi., ℥ij.; Aq. camph., ℥viij.; capiat., ℥ss., bis die.

March 25th.—He had now been for a considerable time quite free from pain in the arms and legs. The pain in the back, though still there, was much lessened. His sleep had become much less heavy, and much more refreshing than formerly. He was advised to continue the ice as before, and to take ferri et quinæ citratis, gr. iv., bis die.

May 9th.—He continued quite free from pain everywhere except across the sacrum, where it recurred occasionally, and only when he sat down. He was requested to continue the ice and medicine as before.

June 27th.—The patient reported that he had used the ice and medicine as last prescribed during a week, but not afterwards, and that he had continued quite well in all respects.

CASE 31.—*Headache; Pain across the Sacrum; Vomiting; Excessive Micturition; Deficient and Intermittent Menstruation; Leucorrhœa; Constipation; Coldness of the Feet.*

Sarah S., aged forty, complained March 7th, 1868, of severe and persistent headache; also of intense pain across the sacrum, especially when she stood or walked. Her stomach was extremely irritable: she felt, she said,—"a dreadful sinking at the pit of the stomach," and she vomited very frequently, especially in the mornings—the slightest disagreeable smell made her vomit. Her menses were usually regular as to time, but were very

deficient in quantity, and were intermittent: generally, after quite ceasing, they re-appeared in a few days during an hour or more. She was habitually troubled with leucorrhœa, with the necessity of urinating ten or twelve times a day, and once or twice a night, and also with constipation of the bowels. Her feet were "always dreadfully cold." I prescribed the application of the Lumbar Ice-bag along the dorso-lumbar region during an hour twice a day; also the following medicine:—Ammonii bromidii, potassii bromidii, āā gr. v.; Infusi calumbæ, ℥j., bis die.

March 14th, the patient said,—"I've been quite free from headache till to day, and the pain to day is because I have not had a bag on. I like the ice very much: it makes me feel quite different to what I've felt before." She had not vomited once, and had felt no nausea. The leucorrhœa had lessened; she passed water less frequently; and she was quite sure her feet had become warm. Her bowels were still confined.

March 21st.—On the 14th, 15th, and 16th she used ice only once daily. She had headache and was sick early in the morning of the 16th; but had neither headache nor sickness afterwards. Still had "a little" leucorrhœa. Her bowels had become open daily. I prescribed the application of the ice, till it melted, twice a day; also Acidi nitro-hydrochlorici diluti, ♏ x.; Quinæ disulphatis, gr. ½; aquæ, ℥j., bis die.

March 25th.—Had had no headache or sickness whatever since previous report. The "sinking at the pit of the stomach was nearly gone;" the pain in the lower part of the back was lessened, as was also the frequency of micturition; bowels regular. Treatment as before.

April 18th.—Had had headache once for a short time; never vomited; "sensation of sickness" rare; pain in the back "very muchlessened." "I can stand," she said, "a much longer time." Menses slightly increased, and of brighter colour; made water about five times a day, and once at night; leucorrhœa still lessened; the feet were decidely and permanently warmer; and she was warmer all over: she said, "I feel myself much warmer with the ice on than when it is off." Bowels regular. Treatment as before.

April 25th.—Had had no headache, and no sickness or nausea whatever, and was, in every respect, improved since the 18th inst. Treatment as before.

May 2nd.—She had a fright on the 27th ult., and while in the consulting-room was trembling—she could not hold her arms still; she became extremely cold and powerless. She had recovered somewhat, but was much shattered. I prescribed the application of ice along the whole spine, sixty minutes, twice a day; also ferri et quinæ citratis, gr. iv., bis die.

May 9th.—Was generally better. The trembling had all but ceased; but she still felt "very nervous." The application of the Ice-bag along the whole spine produced "pain, and a feeling of fulness in the forehead and eyes" each time; these feelings lasted as long as the bag was applied, and came on, she said, "almost as soon" as she put it on. I requested her to apply two cells of the Spinal Ice-bag along the lower two-thirds of the spine twice a day till the ice had melted. [N.B.—She volunteered the statement that she had tried the Lumbar Ice-bag, and found that it caused no pain.]

May 24th.—Had had no more headache or trembling; but complained still of "a sinking at the stomach." I ordered the medicine and the ice as before.

July 8th.—Every symptom of which she complained had now disappeared: she reported herself quite well in every respect, and the treatment was discontinued.

Case 32.—*Intensely Painful Clonic Contractions of the Trapesius and Complexus Muscles of the Right Side.*

W. D., aged sixty, came to me on March 11th, 1868, suffering from clonic contraction of the trapesius and complexus muscles of the right side, which he felt for the first time in the beginning of the previous December, and which had been steadily increasing since that time. He twisted and jerked his head violently over his right shoulder; he had great pain at the scapular origin of the trapesius, and at the occipital attachment of the complexus and trapesius; pressure on the second cervical spine produced extreme pain. He had no headache; bowels open only about twice a week; bladder healthy. I prescribed Pot. brom., gr. viij.; Inf. calumb., ℥ss., ter die.

March 28th.—The patient was no better. He said that the pain was awful, that it continued for hours every day, and that it was even extending down the back, and along the left shoulder and arm. I advised that ice should be applied along the whole spine, quite up to the base of the brain, until it had melted, twice a day; and that the patient should continue to take the medicine already prescribed.

May 2nd.—The pain was much lessened. The patient said that he was now often an hour without any pain, even when the Spinal Ice-bag was off. The arm was disposed to move; the pain in the shoulder had almost subsided. I requested the Spinal Ice-bag to be applied as before whenever the symptoms recurred.

May 18th.—The patient continued the application of ice up

to this date, when he went into the country. The pain had become so subdued that, after having a refreshing night's sleep, he rose in the morning without any pain ; some days the pain did not recur at all, and when it recurred the application of the ice stopped it at once. Since being under treatment, his appetite and sleep had improved wonderfully ; and after his return to London he reported himself quite free from his malady.

CASE 33.—*Headache ; Uterine Neuralgia ; Retarded and Deficient Catamenia ; Loss of Appetite ; Coldness of the Feet ; Extreme General Weakness ; and Mental Apathy.*

E. F., aged nineteen, consulted me March, 18, 1868, when she was suffering as follows :—She had headache very often, and for many hours together. At each menstrual period she experienced such acute uterine pain, that during the first day she was wholly incapacitated from doing anything. She began to menstruate when she was sixteen years old, and the catamenia recurred in a healthy manner only two or three times ; afterwards six, and sometimes eight, weeks elapsed between her periods, and the flow became so slight that she said, " I hardly ever know whether I'm unwell or not." Her appetite had become extremely enfeebled, and she was unable to take any breakfast at all ; her feet were habitually very cold ; she had become extremely weak, both physically and mentally—in fact, she complained most especially of great languor and apathy, of feeling incapable of taking interest in anything.

The patient was submitted to the Neuro-dynamic treatment during a year. The only medicine she took consisted of citrate of iron and quinine—five grains twice a day, during the month of May. On the 25th of March she described herself as feeling lighter and better, and said that her feet had become quite warm. In April she menstruated during four days—from the 7th to the 11th inclusive. May 2nd, she reported that she had headache only once during several weeks, and that she felt " much lighter and more spirited." In May she again menstruated during four days—from the 9th to the 13th inclusive, the Spinal Ice-bag being used as directed, without causing any discomfort meanwhile. Her progress continued uninterruptedly : the menstrual function became thoroughly healthy in respect to the periods of its recurrence, its duration, and copiousness—the latter being greatly increased ; she was completely free from both headache and uterine pain ; her feet continued normally warm ; she regained her appetite and natural vigour ; and, on the 27th March,

1869, when I last saw her, she said,—"I've come to tell you how well I am." She looked, indeed, wonderfully improved, and assured me that she felt in all respects quite well.

CASE 34.—*Neuralgia of the Head and Face, together with Mental Confusion and Depression, occurring chiefly at Night, and, including periods of remission, of about Five Years' Duration.*

March 28, 1868.—A. J., female, aged twenty-five, complained of violent pain in the face on both sides, and in the right temple, extending backwards to the centre of ossification of the parietal bone. The pain, she said, "shoots, darts, and travels about." If she went out at night, it came on when she returned home, and kept her awake all night: sometimes it subsided in the morning; sometimes it continued throughout the whole day following a bad night. The neuralgia was usually associated with headache, more or less general, confusion of ideas, mental apathy, and depression. The patient described her state during her attacks by the phrase, "general numbness in the head." She was in pain while consulting me. She said that while her head ached it was cold. She felt extremely "sensitive and unstrung" during her attacks, and for some time afterwards. Tongue clean; bowels regular; menstruation normal; feet usually warm; pulse 80—good. The patient began to suffer as described about five years previously. At the beginning of 1867 she had a severe shock from the death of a brother, and for several months afterwards her sufferings were almost continuous. She was treated solely by the Neuro-dynamic method: no medicines.

April 4th.—She reported that she had had no neuralgia since she began to use the ice—on which, almost every night, she had fallen fast asleep. On returning home one night with headache the ice took it away. Felt altogether better, and had a great deal better appetite; felt so well, in fact, that she left off the ice the previous morning. Began to menstruate on the morning at the end of three weeks, instead of a month as usual. I directed that after menstruation had ceased, she should apply the Spinal Ice-bag once a day along the whole spine during forty-five minutes.

May 21st.—The patient said she had applied the ice, as directed, for a short time after her last visit; but that feeling quite well she soon discontinued its use. She had had no pain whatever, and described herself as "perfectly well."

CASE 35.—*Intense Headache; Acute Pain in the Four Extremities; General Swelling and Extreme Tenderness of the whole Body; Ulceration of the Tongue; Constipation of the Bowels.*

L. C., female, aged five, was brought to me at the Farringdon Dispensary, April 15, 1868, in great suffering—in fact, her whole body seemed to be painful: she could not bear her mother or any one else to touch any part of it. The limbs were very perceptibly swollen, and her mother said the body generally was swollen. In the course of a few days she had seemed to become considerably stouter than before. Her skin was hot; she was extremely thirsty; she had a very troublesome, and almost incessant, dry cough; there were several ulcers on her tongue, from two to three lines in diameter; and her bowels were constipated. She could not bear pressure on any part of the spine. I regret very much that I did not record the state of her pulse.

About a fortnight before I saw the child she began to complain of headache, which became increasingly severe. On April 9th she became decidedly ill, and could scarcely run about, and marked thirst and feverishness—the skin becoming hot—supervened. On the 13th she began to complain of pain in all her limbs; on the 14th her shoes could not be got on; and on the 15th, when she was brought to me, she was so generally, and so painfully sensitive that she feared lest anyone should touch her. On the morning of that day her mother was particularly struck by the fact that the left side of her face, and of her neck down to the shoulder, was especially swollen. The swelling was most obvious in the feet and hands. During several nights her arms were violently jerked as she lay in bed. Her cough began about a fortnight before I saw her; it steadily increased, and became so incessant as to prevent her mother from getting any rest at night. During the first ten days of her illness her bowels were relaxed; then they became constipated. I prescribed no medicine, but directed that ice should be applied along the whole spine during ninety minutes three times during the day.

April 16th.—I saw the child at its home: she was lying quietly in bed, and told me that she had no headache, and no pain in her limbs. I could perceive no swelling in the hands, feet, or face, and could handle freely any part of the body, exerting pressure on the hands and feet, without causing pain. There was still considerable feverishness, and the ulcers on the tongue appeared much the same as on the previous day. The child had, however, slept a good deal in the early part of the morning. I now requested that she should be sponged all over with

warm water, and that the use of the Spinal Ice-bag should be continued as before.

April 18.—The little patient had borne the ice thoroughly well: both her father and mother stated that each time it was applied it soothed her in a remarkable manner; and the mother added that only at the end of the hour when the Ice-bag had ceased to be cold did the child evince impatience. Headache, which I asked particularly about, was no longer complained of. Her body exhibited no perceptible swelling anywhere, but there was tenderness of the arms and hands again to-day, causing her to cry when they were pressed upon. The arms were still hot, but the feet had become cool, and were no longer tender. I ordered the bowels to be kept open by means of castor oil, and the Spinal Ice-bag to be applied four times a day, great care being taken to remove it as soon as it should cease to be cold.

April 25th.—I found the child sitting up in bed eating a plum tart, and quite free from pain, which was not produced even by pressure over any part of the limbs. I requested the ice to be applied three times a day, and full doses of citrate of iron and quinine to be given also three times a day.

May 2nd.—The patient walked across the room for the first time: she had no pain in the back. I requested the ice to be used now only twice a day.

May 6th.—She walked to the Dispensary with her mother to-day, and continued free from pain. I ordered the discontinuance of the ice, and requested that as much nourishment as possible should be given, and that the tonic should be continued.

May 9th.—The child ran about, talked and sang. The appetite had much improved; she could now take flesh meat. Her mother said "the child is wonderfully well now." I advised the continuance of the tonic medicine a little longer, and at this date the patient ceased attendance at the Dispensary.

CASE 36.—*Intense Headache; Constant Aching, Swelling, and Tenderness of the Limbs; Tonic Contraction and Hardness of the Muscles at the Back of the Neck, and of those of the Fore-arm; Excessive Constipation of the Bowels.*

April 16th, 1868.—When visiting on the first occasion the patient whose case is numbered 35, I found her sister, C. C., aged fifteen, suffering in like manner. She complained of intense headache, which had lasted eleven days, and of constant aching of her four limbs. She seemed to be in a state of semi-stupor; her limbs were swollen, but to a less extent than her sister's were;

her right hand, however, particularly over the thenar eminence, was much swollen, and the fingers of the same hand were so spasmodically flexed that she could not extend them by any effort of her will. Owing to the powerful tonic contraction of the muscles at the back of the neck, her head was all but immovable. These muscles were remarkable hard, and pressure on them, as well as on those of the extremities, caused acute pain. The spine was decidedly tender, but less so than that of her sister. Her complexion was dusky, and her bowels were extremely constipated. I ordered the Spinal Ice-bag to be applied along the whole spine ninety minutes three times a day. No medicine.

April 18th.—The headache had subsided, and the mental condition had greatly improved. The swelling was nowhere perceptible, but there was slight spasmodic contraction of the left hand this morning. The pain in the limbs was all but gone, and she could move her head freely. I now requested the Spinal Ice-bag to be applied only twice a day.

April 20th.—The patient reported herself well, excepting that she felt some pain in the left epigastric region. Her complexion and expression had become remarkably clear. I advised the continuance of the Spinal Ice-bag twice a day.

April 25th.—She continued to improve very satisfactorily, and the Spinal Ice-bag was ordered to be applied only once daily.

May 6th.—The patient had become quite well, and the treatment was discontinued.

CASE 37.—*Severe and Prolonged Headache; Infra-mammary Neuralgia; Deficient and Unrefreshing Sleep; Excessive Constipation of the Bowels; Unduly frequent Micturition; Deficient and Retarded Menstruation; Profuse Leucorrhœa.*

C. S., aged twenty-two, came to me, May 16th, 1868, suffering from intensely oppressive headache, which had continued since the middle of the previous December, and had been increasing in intensity since that time; but she said, "I seem to have been always affected in my head." She also complained of almost continuous pain beneath the left mamma. The whole spine, but especially the lumbar region, was very tender. The bowels had not been moved during the previous five days, and were often as long without action. Urinated about six times a day. She began to menstruate when between fourteen and fifteen years of age, but the menses had been always more or less irregular: ordinarily she went six, but had even gone ten weeks without menstruating;

she had had profuse leucorrhœa since the previous Christmas; and her sleep was deficient and unrefreshing. I advised her to apply ice to the lumbar region during ninety minutes twice a day.

May 20th.—Her headache and sideache were already much relieved, but her bowels were still constipated. I prescribed an aperient saline and the continuance of the ice as before.

June 27th.—The patient had used the ice as ordered until 21st June, and found its application very agreeable. The headache was "very much lessened;" all the intense shooting pain had gone; menstruation had been much more copious during the last period than formerly, and the pains she usually suffered were very much lessened. The leucorrhœa was nearly gone. Bowels "quite regular." She said—"My sleep is much improved; in fact, I am nearly quite well." At this date the patient went into the country and the treatment was discontinued.

CASE 38.—*Severe Neuralgia across the Sacrum, and in the Left Hip, Leg, and Foot; Pain and occasional Swelling of the Hands and of the Right Knee; Globus Hystericus; Excessively Frequent Micturition.*

F. E., aged sixty, one of Dr. Drysdale's patients treated by me at his request, complained, May 20th, 1868, of great and almost continuous pain across the sacrum, so extreme that it wore her out; also of pain in the left hip, and down the outer side of the leg to the sole of the foot, and toes. Had pain in, and sometimes swelling of, the right knee also, which prevented her from walking, and to which she sometimes applied a mustard poultice. The hands, too, were painful, with pricking, shooting, and swelling of a gouty nature. She was also distressed by a burning lump in the throat, which especially troubled her when she swallowed. She urinated about every ten minutes, and could not hold her water more than fifteen minutes. She suffered but little from headache; her bowels were open daily; and she had no leucorrhœa. Pulse 84. I advised the application of the Lumbar Ice-bag to the lumbar and dorsal region during an hour twice a day.

I did not see this patient again until January 23rd, 1869, when she informed me that the burning lump in the throat, the pain in the loins, and the pain and swelling in the hands, feet, and knees had all been remedied by the Spinal Ice-bag, and that the frequency of making water was much lessened. She had been unable to use ice for many months past; but the relief afforded by the application of it had been both great and speedy.

CASE 39.—*Headache; Severe Pain in the Chest-walls, especially in Front of the Chest, Below the Left Mamma, and in the Shoulder-blades; Severe Cough; Shortness of Breath; Deficient and Painful Menstruation; Leucorrhœa; Constipation of the Bowels; Coldness of the Feet.*

Mrs. P., aged thirty-three, consulted me June 23rd, 1868, when she complained of suffering severe pain in the front of the chest, below the left mamma, and in the shoulder-blades. She had "a dreadful cough," and experienced considerable difficulty of breathing, especially when going up stairs. Her ordinary medical attendant told her her lungs were affected, and advised her to give up work. She very often had headache, which was especially severe during her menstrual periods. She slept "very badly indeed," and had "a very bad appetite." Her bowels were obstinately costive, and she suffered greatly from dysmenorrhœa—the discharge being very scanty, and accompanied with intense pain. She was troubled "occasionally" with leucorrhœa; her feet were habitually *very* cold, and she was extremely languid and incapable of work. I treated her solely by means of the Spinal Ice-bag, no medicine being prescribed.

July 9th.—The pain in the chest and below the left mamma, as well as that in the shoulder-blades, had quite gone; the headache and cough had ceased; the breathing had become easier; the bowels were less costive, being open every other day; and her sense of fatigue was already very much lessened.

July 21st.—There had been no return of the pain in any part of the thoracic region; she began to menstruate July 3rd; the ice was applied during the period as ordered; her menstrual pains were lessened "a very great deal," and the flow was increased; she had no headache whatever during her period; she was sleeping every night "very well indeed;" her bowels were open each day; she was quite free from leucorrhœa; and not only had all difficulty of breathing when walking vanished, but she assured me that she felt as fresh and vigorous as she had ever felt in her life. I did not see her again after this date.

CASE 40.—*Neuralgia of the Right Side of the Face, Neck, Shoulders, Breast, Axilla, and Right Upper Extremity, which was sometimes Partially Paralyzed; Troublesome Lachrymation; Excessively Frequent Micturition; Constipation of the Bowels; Cramp; Coldness of the Feet.*

S. G., female, aged forty-four, married, came to me June 24th, 1868, suffering from neuralgia of the right side of the face, neck, shoulder, breast, axilla and right arm and hand. The latter became partially paralyzed at times. The pain, when least, was, she said, "a nasty smarting;" when worst, fearfully shooting and stabbing, and was almost without intermission. Her eyes watered very much; bowels constipated; menstruation very free; no leucorrhœa; made water two or three times an hour throughout the day; had severe cramps in the legs; feet habitually very cold. I treated her by means of the Spinal Ice-bag and small doses of chloride of ammonium.

June 27th.—Felt somewhat better generally, and felt distinct relief while applying the ice, which she found very agreeable.

July 3rd.—Had used ice regularly, except during her menstrual period. The bowels "were very comfortable." She said the cramps lessened while she continued to use the ice, and increased again when it was left off. The same remark applied to her urination. The neuralgic pain was less intense.

July 22nd.—The patient said the pain was decidedly less frequent and intense, and the arm was stronger. The troublesome lachrymation had nearly ceased. Made water now only two or three times a day.

August 26th.—Had remained free from neuralgia throughout her last menstrual period; but she could not afford to supply herself with ice, and hence the treatment was discontinued.

CASE 41.—*Headache; Uterine Neuralgia; Insufficient Sleep; Impaired Appetite; Deficient Menstruation; Leucorrhœa.*

D. J., aged twenty-four, stated that about a year previously her menses became scanty and painful. When she consulted me they lasted only a day, were very slight, and were preluded by a day of great pain. Since the commencement of the dysmenorrhœa, she had been troubled with leucorrhœa. She had suffered during three years from headache, which had been increasing, and during the latter part of that period she had been "scarce a day"

without it; it generally lasted all day, and sometimes almost deprived her of sight; she was very restless at night; appetite variable; bowels regular. She was treated, in the first instance, exclusively by means of the Spinal Ice-bag.

June 27th, 1868.—At this date the patient had been under treatment about six weeks; she menstruated a fortnight ago, with very little pain indeed; still had leucorrhœa. She said, "My head and eyes are much better," and she slept better. I requested the Spinal Ice-bag to be used as before, and prescribed Misturæ gentianæ, ℥j., ter die.

July 25th.—Had used the ice during an hour twice a day; was "unwell" two days a week previously; the flow was more copious, and the patient suffered much less pain than she had been accustomed to do; she had also less leucorrhœa. She stated that she had been *free* from headache for some time past, and repeated that she had better nights. Appetite much improved. I did not see this patient again.

CASE 42.—*Headache; Ovarian and Uterine Neuralgia; Backache; Giddiness; Deficient Menstruation; Excessively Frequent Micturition; Coldness of the Feet.*

August 22nd, 1868.—Ellen N., aged thirty-three, who had been married nine years, was troubled continually with the "whites," which had continued six years. She was "pretty regularly unwell, but there was scarcely anything at all,—scarcely a show, only a few spots." Her pain during her periods was so severe for twenty-four hours that she "could not sit or stand or do anything else." She had very severe headache, which continued all the day two or three times a week. She was very giddy, and had fallen "a time or two" in consequence; suffered much pain in the hollow of the back. The pain was sometimes so severe that she said, "When I sit down I can hardly get up again." She complained also of pain in the region of the left ovary, which was brought on by walking; bowels regular; micturition frequent and abundant; feet always very cold. She was treated solely by means of the Spinal Ice-bag and infusion of cinchona.

August 29th.—The patient was already much better. The pain in the back and the giddiness were lessened; the leucorrhœa too.

September 12th.—The headache and giddiness were nearly gone. During the previous few days micturition had not been so frequent. "I feel better like in myself," she said, "and more cheerful than I have done."

October 3rd.—The leucorrhœa had almost ceased; the pain in the back quite so. She had felt headache but once during the previous fortnight, and then very slightly. There had been no recurrence of giddiness; bowels regular; pain in the region of the ovary quite gone. Treatment discontinued.

CASE 43.—*Painful Excitability of the Spinal Cord; Headache; Sickness; Hæmatemesis; Pain in the Left Eye; Unduly frequent Micturition; Coldness of the Lower Extremities.*

October 23, 1868.—I was consulted by a lady, aged about thirty-five, who was suffering in a preeminent degree from what I have called 'painful excitability of the spinal cord:' she complained of aching in the spine, most marked between the shoulders, and often ascending to the head, causing headache, face-ache, especially in the nose, also pain in the eyes; when the pain was very severe indeed it descended, affecting the waist and hips, and extended even to the knees; this was followed by retching and sickness—often during an hour at a time, and after being sick a day she always vomited blood, not in large gushes, but in quantities sufficient to redden completely the whole of the ejected matter. The patient had these very severe attacks with sickness two or three times in the year, but suffered from back-ache, off and on, during all the cold months; sometimes if she walked out on a cold day she was attacked with an extremely acute pain, like to that produced by a hot iron, and with cramps, starting from between the scapulæ and extending to the head, which for a short time she could not move; she was generally free from headache except during the attacks mentioned, but was peculiarly liable to great pain in the left eye. Chest always healthy; tongue clean; appetite small and rather feeble; bowels prone to constipation—never opened above three or four times a week; menstruation normal. The patient asserted that the smallest dose of calomel would induce it at any time: the Spinal Ice-bag did so when used, and I may add, used successfully, for stopping sea-sickness. Urination was very frequent during an attack—sometimes every quarter of an hour—at other times she was not troubled at all in this respect. Hands and feet always "stone cold" in winter; she could scarcely make them warm at all. Pulse 80—very feeble. Slept very badly; was usually awake a dozen times during the night, and felt very weary in the morning. Long before she had pain in the back she used to suffer much from sickness and vomiting of blood, beginning nine years ago. Two or three grains of quinine in phosphoric acid generally benefited her temporarily. She had

taken bromide of potassium during a month, but she could not bear it; she said it made her wretched: she could neither write, add up figures, nor remember peoples' names when under its influence.

I treated this patient with ice only, and at the end of a week after prescribing for her I saw her again. She reported that the application of the Ice-bag speedily made her warm all over, but that it also caused a throbbing headache with flushed face. At first, fearing that the ice would make her cold, she sat near the fire whilst using it, but soon found it needless to do so, and having put on the bag when her feet were extremely cold, they became quite warm within half-an-hour.

November 13th, 1868.—The patient generally continued wonderfully warm, and became so, when walking, much more readily than formerly. On the last occasion menstruation came on ten days before the regular time. Usually she had much pain during her periods, and the flow lasted four days; on this occasion she was free from pain, and the flow lasted six days.

Nov. 20th.—On the 15th she had no ice and suffered extremely from "neuralgic pain" shooting up and down the spine, and from headache. On the 16th she applied ice and it caused a recurrence of the sanguineous discharge both in the morning and the afternoon. The patient was attacked with influenza, and being treated by the medical attendant of her family she ceased of course to follow my directions.

December 2nd, she applied to me again (by letter). She wrote as follows: "I have now a great deal of spinal pain from between the shoulders into my head, and also neuralgia in my teeth, brow, and ears at times; I have very sleepless nights, and sharp pains round my waist after eating; I have, when that pain has become very intense, three or four times been sick, usually this is at night. . . . Dr. —— says I must have patience with the sickness, but I should like to try ice first, if you think I may, although I am afraid of trying it without your sanction." I prescribed the application of ice over flannel along the upper two-thirds of the spine, and simultaneously the application of an 8-inch Water-bag, containing water at 115° F. to the lower third of the spine during fifteen or twenty minutes twice a day; also the application of ice in the same manner at any time whenever the patient became sick, and on those occasions, and those only, without using heat at the same time; I also prescribed, beberiæ sulphatis, gr. ii½, ter die.

December 31st, 1868.—The patient reported as follows: On the 4th she began to take the pills as directed. On the 6th she had a violent spasm or cramp in the hypogastric region lasting from seven to nine p.m., when it became less severe but kept her

awake all night; she became sick with the pain, and was frequently so during the night. The next day she applied ice as I had directed, and continued to do so during a week using it only when she was especially sick. She began to menstruate three weeks and two days from the beginning of her previous period which had come on before the end of three weeks from the beginning of the preceding one. The catamenia continued a week, whereas they formerly lasted but four days, and recurred only once a month. She said that the ice always seemed to do her good, that it was always pleasant, and that she both looked better and eat her food better after using it; she was sure her spine had become less tender in consequence of the use of the ice, but she had "become dreadfully cold again after leaving it off." I advised that the treatment last prescribed should, with some slight modification, be persisted in.

January 16th, 1869.—She continued the use of the ice until this date, but left off the use of heat four or five days previously. She had had two attacks of "spasms;" had had more pain along the lower part of the back and down to the knees; also more pain when "poorly;" and her appetite was feeble; on the other hand she was assured that the ice stopped the sickness, made the upper part of the back less tender, and conduced to sleep. Moreover, the feeling which she used to have as of a red-hot iron up the spine which fixed the neck and left marked tenderness for two or three days after it came on, and the nervous headaches which also formerly troubled her had gone quite away since she had used the ice.

Comment.—Unfortunately I never saw this patient again. Her favourable and unfavourable experiences of the effects of the treatment adopted testify with peculiar emphasis to the greatness of its power and to the truth of the general doctrine forming the basis of Neuro-dynamic medicine. Within a week from the time the treatment began the patient who had habitually suffered from being cold had become warm all over. It is stated, Nov. 13, that whereas usually she had much pain during her catamenial periods, the first which occurred after she began to use the Spinal Ice-bag was without pain; and the last time I saw her she reported that the ice stopped her sickness, lessened the tenderness of her spine, and abolished both her "nervous headaches," and the terrible feeling "as of a red-hot iron" up her spine. On the other hand, the ice as first applied caused "a throbbing headache with flushed face," a very unsatisfactory result it must be admitted, but one which ought to be impressively instructive to both the physiologist and physician. Claude Bernard's experiment on the cervical sympathetic was here virtually repeated, his conclusion concerning its

function being decisively confirmed—but happily without recourse to vivisection. To the physician the result in question might suggest the idea that inasmuch as in this case the cerebral circulation was increased by applying ice to the spine, the large group of brain disorders the proximate cause of which is cerebral anæmia or insufficient nourishment of the brain-tissue may be most successfully treated by the Neuro-dynamic method. Again, though in this case it was difficult to obtain the advantages derivable from the use of the Spinal Ice-bag, because it induced the catamenia with undue frequency and unduly long continuance the production of these remarkable effects ought surely to deepen the insight of the physiologist respecting the nature of the relation between the nervous system and the menstrual function, and to give the physician an unspeakably important practical lesson in the treatment of uterine disorders, especially those forming the dysmenorrhœal group by the remedial method in question. I prescribed the sulphate of beberia, and the application of heat along the lower third of the spine, in order to lessen the frequency and duration of the catamenia, and to check the action of the ice in increasing them: the patient reported, Dec. 31, that the catamenial interval had lengthened again. She also reported that having left off the ice during the previous ten days she had become dreadfully cold again; and that subsequently having resumed its use *together with the application of heat along the lower third of the spinal cord*, she had more pain again when poorly, and more pain *along the lower part of the back and down to the knees*—results capable of being produced by heat thus applied and thoroughly accordant with the doctrine, forming the basis of the treatment which these cases exemplify.

The patient was nominally under my care during only three months, and during portions of that time the treatment I prescribed was not practised; in the course of those three months I saw her only six times. The gravity of her case and the remarkable susceptibility of her nervous system to the influence of both heat and cold when applied to the spine made it almost indispensably necessary that she should be under my immediate care in London so that I could see her almost daily and could thus be enabled to modify the treatment adopted as I might have judged expedient according to the successive indications of the rapidly changing symptoms. In a case in which even the smallest dose of calomel induced the catamenia, and in which moderate doses of bromide of potassium disabled the patient from writing, adding up figures, and remembering peoples' names, the effects of the Neuro-dynamic treatment, which, precisely because it is pre-eminently powerful for good, can, if misused, easily do harm, needed constant and intelligent watching, so that the maximum of good with the

minimum of harm might be secured during its application. But the patient found it cost the least effort to submit herself to the ordinary treatment by means of drugs prescribed by the physician in her immediate neighbourhood, and I understood that her malady increased so seriously that at length she lapsed into unconsciousness which continued a considerable time, and that she is still unable to leave her couch.

CASE 44.—*Prolonged Headache; Suppression of the Menses.*

October 24th, 1868.—Harriet W., aged seventeen, complained that she got wet three months previously about the time of her "period." She did not become "unwell," and had not menstruated since. She had suffered from headache during the previous four months. Her head was hot, and she slept very heavily; her bowels were open daily; she did not suffer from cold feet. Pulse 108. I prescribed the application of the Lumbar Ice-bag, until the ice should be melted, twice a day. No medicine.

Oct. 31st.—She began to apply ice on the 25th, when she applied it once, and repeated the application once on the 27th and 29th. The patient worked until ten o'clock at night, and could not use the ice oftener than she had done: she said it made her back feel very cold, and also made her feel very heavy and sick. She applied the ice on the 29th at ten p.m., and began to menstruate at noon the next day, and was continuing to do so when she called upon me. I had previously given her aloes and arsenic in succession without effect.

Nov. 14th.—Had not been able to use ice at all since I last saw her, but had continued free from headache, and in other respects quite well. Menstruation continued until the end of November 2nd.

CASE 45.—*Habitual Headache; Giddiness; Backache; Uterine Neuralgia; Pains, Weakness, and Coldness of the Feet; Deficient Catamenia.*

January 9th, 1869.—Harriet T., aged twenty-four, complained of pain between the shoulders, and in the lower part of the back. The whole spine was very tender on pressure, especially over the first and second and the eleventh and twelfth dorsal spines. She suffered from shortness of breath when going up-hill or up-stairs; she felt giddy two or three times a week, and had headache constantly; menstruation only lasted two days; she suffered a great deal of pain all the time, as well as a day before menstruation

began. During her "period," the pains in the head and lumbar region were much increased; she suffered from weakness and pain over the tops of the insteps; had no cough; tongue clean; appetite rather feeble; feet cold, I ordered ice to be applied along the lower third of the spine, sixty minutes, twice a day.

Jan. 16th.—The pain in the back was much lessened. The patient felt much stronger, and said,—"My breath is not so short as it was." "I have only had one of those giddy sensations in the head, and this week have had no headache." Pain in the insteps lessened, and feet much warmer. Requested to increase the application of ice to ninety minutes, twice a day.

Jan. 23rd.—The patient began to menstruate on the morning of the 20th inst., and felt no pain. The weakness and pain in the insteps were quite gone; the feet were very warm; she considered herself quite cured. However, I advised her to continue the treatment a week or two longer; but I did not see her again.

CASE 46.—*Pains and Swelling of the Feet; Great Difficulty in Walking.*

Jan. 14th, 1869.—Wm. B., aged twenty-five, complained of pain in both feet, "just as if blood was rushing into them." The right ankle was swollen on the inner side, and the joint felt loose, he said. He walked with great difficulty, and when walking he had pain along the soles of both feet, as if they were affected with rheumatic or gouty inflammation; also when walking he oscillated laterally, as if balancing himself. These symptoms made their appearance for the first time about eight months previously. When he stood he had a feeling of tightness, "as if something was drawing the soles of the feet together, and wanted to be expanded." Walking to his business, a distance of one mile, took him from forty-five to sixty minutes.

When the patient was ten years old he received a blow behind his ear, which was followed by partial (nearly complete) blindness of both eyes, "caused by a film over his eyes," as he said. The sight of the right eye was still defective. The bowels were regular, and the feet were generally warm; no spinal tenderness. I ordered ice to be applied to the dorso-lumbar region for two hours twice a day.

Jan. 20th.—The patient walked much better; he could stand longer without feeling pain, and could use his feet more quickly. He had not had the feeling as if the blood were rushing into them. The swelling in the right ankle was much lessened. The treatment previously ordered was continued.

Jan. 27th.—His power of walking had greatly increased. His

right foot was very much more flexible, and he felt himself, on the whole, very much better. He was requested to continue the treatment as before.

Feb. 10th.—The patient walked into my consulting-room without any lameness. He was then able to go to his business in twenty-five minutes. I advised him still to continue the ice as before, to have the right foot vigorously rubbed, and to take Potassii bromidii, gr. vij.; Infusi. calumbæ, ℥ss., bis die.

Feb. 24th.—The swelling of the right foot was quite gone; he could walk to business in twenty-two minutes; he was able to lift and carry things, which he was not able to do before. The patient reported himself "another man," in every respect. However, I advised him to continue the use of ice some time longer; but I did not see him again.

CASE 47.—*Headache; Pain between the Shoulders and in the Chest; Cough and Copious Expectoration; Shortness of Breath; Suppression of the Catamenia; Coldness of the Feet.*

February 2nd, 1869.—Ann S., aged twenty-eight, complained of "pain in the chest," and in her back between the shoulders: she had suffered thus for about three months; she coughed very much, and expectorated copiously; she generally had headache, especially during the last few weeks before I first saw her; she had not menstruated for four months. A remarkable feature in this case was that she had no leucorrhœa. Her bowels were open daily; she suffered much from coldness of the feet, especially during the previous two months; going up-stairs tired her very much. I ordered ice to be applied to the lumbar region in the upper cell only of the Lumbar Ice-bag, sixty minutes, three times a day.

Feb. 7th.—The patient began to menstruate on the 6th of February; she had no headache, and said, "I feel much stronger; my breath is much easier." The feet had been much warmer during the previous three or four days. She was requested to continue the use of the Spinal Ice-bag during the catamenial period.

Feb. 10th.—The ice had caused her no inconvenience whatever, but the flow ceased on Sunday. The patient said, "I feel almost as if I were quite well." I advised her to continue the ice as before, and to take ferri et quinæ citratis, gr. v., and Olei morrhuæ, ℥ij., bis die.

April 24th.—The patient began to menstruate on the 20th, and continued to do so four days without pain of any kind. She was well in all respects, and the treatment was discontinued.

CASE 48.—*Thoracic Neuralgia.*

April 10th, 1869.—Catharine W., aged forty-five, married, suffered from thoracic neuralgia, which had continued uninterruptedly for three weeks. Even during each night the pain was always present, so that, except when, overpowered with exhaustion, she had dozed a little, the pain, she declared, had never left her. It was chiefly on the left side, below the left mamma, and extending backward to the spine; but it also shifted to the right side, extending upwards under the blade-bone. She said the pain was just as if she "was taking a penknife and jobbing it in the bone." On each side the character of the pain was the same. About seven years previously she was in Bartholomew's Hospital fifteen weeks with similar symptoms. She was told at the hospital she was suffering from pleurisy, and was cupped, leeched, and blistered. She was five weeks before she got any relief at all, and having got gradually better she left the hospital. The leeching, blistering, and cupping was all within the first week. I ordered ice to be applied forty-five minutes along the whole spine three times a day. During the first application the pain subsided entirely, but recurred about thirty minutes after the bag was removed. The pain recurred very slightly after the second application, and scarcely at all after the third.

April 14th.—I ordered the bag to be used ninety minutes. This was done daily four times, and no pain whatever was felt after the first of these applications.

April 17th.—The woman brought back the bag with overwhelming expressions of thankfulness for the cure of her malady.

CASE 49.—*Headache; Pain in the Chest and Side; Retching and Vomiting; Constipation of the Bowels.*

April 17th, 1869.—Annie H., aged twenty-four, complained of pain in the head, chest, and side; of retching and vomiting—everything she ate causing her to be sick; and of constipated bowels. Her menses during the last five months had been extremely scanty, "a mere show." I treated her exclusively by means of ice.

June 12th.—She had used the ice, as ordered, regularly. The pains and sickness were quite gone; the patient said she had not been sick at all during the last month, and that her bowels had become regular; she had menstruated twice freely, "the second time abundantly." She reported herself quite well, and therefore ceased to attend at the Dispensary.

CASE 50.—*Prolonged Headache; Infra-mammary Neuralgia; Heavy and Unrefreshing Sleep; Cough; Deficient Catamenia; Coldness of the Feet.*

June 12th, 1869.—Elisabeth H., aged twenty, consulted me, when she complained of almost continuous headache, of pain beneath her left breast, and of a dry cough. Her menses were very deficient, and had always been so; but they recurred regularly. During their recurrence her headache was much increased: it was most severe during the early part of the day. She slept very heavily, and felt as sleepy in the mornings as if she had not been to bed. I prescribed the application of the Lumbar Ice-bag in the lumbar region, twice a day, until the ice should be melted, and infusi calumbæ, ℥j., twice a day.

I did not see the patient again until May 11th, 1872, when she informed me, that by acting on my advice in 1869, she was completely freed from all pain, and had become thoroughly well.

CASE 51.—*Intense Pain of Several Years' Duration in the Lumbar Region.*

June 16th, 1869.—Mrs. W., aged twenty-seven, complained of intense pain across the hollow of her back. It had troubled her during several years, and had increased in severity, especially during the preceding four months. There was very great tenderness of the lower dorsal and of the lumbar spine.

She was treated exclusively by means of the Lumbar Ice-bag, and on June the 30th—after the lapse of only fourteen days—she assured me that the pain was completely annulled, and that her back was wonderfully strengthened.

CASE 52.—*Headache; Ocular and Intercostal Neuralgia; Backache; Incontinence of Urine.*

July 11th, 1869.—Mary M'C., aged twenty-nine, came to me a few months previously complaining of pain in the head and across the eyes, also of extreme pain in different parts of the walls of the chest—especially below the left mamma—and in the lumbar region. Suffered much from incontinence of urine. She was treated solely by means of the Spinal Ice-bag.

The patient said that she found herself generally improved under the ice treatment adopted according to my directions, espe-

cially in respect to increase of circulation, denoted by increased warmth. She said, "I am natural now; I was not natural before, I was so cold: the least thing makes me warm now."

July 2nd, 1870.—The patient stated that she continued the treatment advised for several months after I last saw her—in fact, until she felt she needed it no more. The incontinence of urine had quite ceased in about four months. The eyes were much better; and she experienced no pain in the chest, mamma, or lumbar region.

CASE 53.—*Headache; Giddiness; Severe Pain in the Hollow of the Back; Great Tenderness along the Spine; Violent Cough; Constipation of the Bowels; Leucorrhœa; Abnormally Frequent Micturition.*

July 18th, 1869.—Jane J., aged twenty, married four months previously, complained of extreme pain in the hollow of the back. It was felt daily, but much worse during menstruation, when she had horrible pain in the back generally, increasing sometimes to an intense paroxysm, which lasted about five hours. There was great tenderness along the dorsal and lumbar spines. Pressure on the dorsal spine caused a peculiar and most distressing pain at the middle of the sternum, and affected her breathing. She complained also of giddiness and pain in the head, which had frequently caused her to reel. After sleeping, "I wake up," she said, "so dreadfully giddy;" she slept soundly, except that frequently, though not every night, she was seized with a violent cough, which lasted from a few minutes to two hours, and caused her a distressing "dragging" at the base of the chest: she expectorated freely afterwards. Pulse, 100; bowels "very confined." Urinated very often at times, and "sometimes I'm quite different," she said. Suffered from leucorrhœa "of a bad kind," which had troubled her for years, but which increased appreciably before menstruation; indeed, the menstrual discharge seemed to consist in great part of leucorrhœa. She was very weak, and could scarcely stand.

I advised her to apply ice along the lower two-thirds of the spine during an hour three times a day, and to take aperient pills occasionally.

September 14th.—The patient continued the use of the ice twice a day during a month, and afterwards about once a day during a fortnight. The pain in the back gradually lessened: "I felt," she said, "different in a week, but very different in a fortnight," and at the end of "about a month I had lost the pain altogether," except during menstruation. She had then a little pain,

"very little—it only just came on now and then." The giddiness had quite ceased, and the headache had lessened "very much." The violent cough, dragging, &c., at the bottom of the chest were "entirely gone." No expectoration. The spine could be forcibly percussed without causing pain, and the peculiar sensation at the bottom of the sternum could not be reproduced. Her bowels had become "nicely regular," and she made water with normal frequency—not more than once or twice a day. The leucorrhœa was much lessened, and much less offensive than it was before treatment. The patient felt altogether "much better—much stronger." She was about leaving London for Hertfordshire, and the treatment was discontinued.

CASE 54.—*Headache Continued from Childhood; Infra-mammary and Uterine Neuralgia; Backache; Deficient Menstruation; Prolonged Leucorrhœa; Slight Cough and Hæmoptysis; Constipation of the Bowels.*

July 21st, 1869.—Susan P., aged twenty, complained of headache, to which she had been always subject as long as she could remember. It occurred generally every day, and was worst in the afternoon. Suffered pain below the mammæ, which had troubled her at frequent intervals during the previous two months; had also very much pain in the hollow of the back, which was relieved by pressure on it; had a slight cough, and spat blood twice the previous week; had always—since she was thirteen years of age—suffered from dysmenorrhœa with great pain; the flow lasted about two days, but was very scanty; had suffered from leucorrhœa for a long period *constantly;* bowels constipated. I prescribed the use of the Lumbar Ice-bag, and Ammonii chloridi, gr. vij.; inf. calumb., ℥ ss., ter die.

August 11th.—The patient said she had used ice regularly as directed; her headache was much lessened; she had passed several days without it; the infra-mammary pain and cough had quite gone, and she had had no hæmoptysis since she commenced applying ice; the pain in the hollow of the back was scarcely felt; the bowels were still constipated, but less so than before I saw her. After using the ice a few days she became unwell; the pain was very much lessened, and the flow was increased, and lasted four days; she wore the ice during the whole period; the leucorrhœa was also much lessened.

September 22nd.—The patient found the application of the ice rather pleasant than otherwise. She said, "The headache is a great deal better; I scarcely have it at all now. I've been three or four days at a time quite clear of it." The pain in the hollow of her

back was "quite gone." The bowels had become open daily. The menses, which had recurred the previous week, continued three days, and were considerably more copious than formerly. During the previous fortnight she had had no leucorrhœa at all.

October 26th.—There was again a marked improvement: she was better in all respects. At this date I advised her to use the ice once daily, and to take Ol. morrhuæ, ℥ij., bis die; also Ferri et quinæ citratis, gr. v., bis die.

February 15th, 1870.—The patient reported herself well in all respects: she looked so, and had become thoroughly rosy. Treatment was therefore discontinued.

CASE 55.—*Neuralgia of the Head, Face, and Shoulders; Excessive Constipation of the Bowels.*

October 2nd, 1869.—Mrs. S. suffered from neuralgia, which was chiefly in the left side of the head and face, and which continued for about the half of each day. It generally came on in the morning. She said, "At the corner of my left eye there seems something drawing; then it goes into my right eye, and down to my shoulders." During the attacks the left eye shed tears freely. Her mother said, "sometimes she had seen her turn very white." The least excitement, or a very warm place, brought on an attack. She did not suffer from headache. Bowels very much constipated; menses regular; feet warm; pulse 100; tongue clean. She was treated solely by means of the Spinal Ice-bag.

October 13th.—The attacks were much slighter; the pain did not extend to the shoulder; and there was no lachrymation. All her symptoms were strikingly lessened.

October 20th.—The pain came on only for two or three minutes daily, and was much lessened in intensity. Bowels less constipated, but still rather confined.

November 20th.—The patient had been quite free from pain during the previous ten days, and, November 13th, the treatment was discontinued.

CASE 56.—*Severe Facial Neuralgia; Headache; Abnormally Frequent Micturition; Excessive Coldness of the Feet; Great Tenderness of the Spine.*

H. B., aged thirty-two, bookbinder, suffering from severe facial neuralgia, consulted me October 19th, 1869. The pain was chiefly felt in the lower jaw and region of the ear, sometimes on one side, sometimes on the other, and recurred daily. The patient

never passed twenty-four hours without an attack, and each attack lasted about five hours. His fellow workmen observed that during his attacks his face had a pasty aspect, and that afterwards it was sometimes swollen. He found that exposure of the painful side of the face to external cold gave relief. When the attacks awoke him up in the night he wholly lost his night's rest. The disease began about ten months previously. During the first three months it came on with notable regularity each evening when the gas was lighted in the work-room, which became much hotter in consequence. The pain usually continued till about 12 p.m.; subsequently, it ceased to have a distinctly periodic character, but the attacks became increasingly severe. He also often suffered from headache. Pressure on the spine of the atlas produced sharp pain. Marked tenderness was also evinced when pressure was made along the lower half of the spine: pressure on the seventh dorsal spine caused the patient to feel as if his breath were stopped; pressure on the upper lumbar was especially painful, on the intervening spines less so.

The patient rose four or five times each night to pass water; and ever since he could remember he had suffered from great coldness of the feet. The tongue was fairly clean; bowels regular; pulse 64, rather feeble, but steady. His urine deposited a sediment, which, he said, "furs the chamber pot." He had been treated at King's College Hospital, chiefly, he believed, by means of quinine and iron internally, and belladonna to the face, but without benefit. He afterwards obtained some slight but only temporary relief by taking chloride of ammonium, prescribed for him at the Farringdon Dispensary. He had had two teeth drawn in the hope of being relieved from his misery, but without avail.

I advised the application of the upper cell of a 22-inch Spinal Ice-bag along the lower third of the spine during an hour and a quarter twice a day.

October 22nd.—The patient reported himself better: the attacks had become less violent, and he had not risen at all during the night to make water since he had used the Spinal Ice-bag. I then prescribed the application of the upper two cells of it along the lower two-thirds of the spine, till the ice should be melted, twice a day.

October 29th.—The patient said, "I'm a great deal better: there seems a subdued pain, but as if something was struggling with it to keep it down. The pain is there, but it feels as if it were dying away,—like the fag end of a pain. It comes on just about the same time now as it did at first; but it's really so slight now, that I scarcely take any note of it. Last Saturday [six days previously] it was very bad from two in the morning till nine at night; since then, I've scarcely been troubled at all." On that

day no ice was applied till night. I again advised the application of the Spinal Ice-bag as before, till the ice should be melted, twice a day.

November 5th.—Had had scarcely any pain at all; had only felt, in the front of the ear, slight jumping pains, lasting a few seconds, and recurring at twilight; had lost his headaches entirely; his urine had deposited no sediment since the third day of using the Spinal Ice-bag; made water only two or three times a day, and not at all at night; said that, so far as his general health was concerned, he never was better in his life. I advised him to persist in the treatment last prescribed.

November 19th.—Had had only one attack of pain since last visit, and then, by applying the Spinal Ice-bag, he caused it to vanish within ten minutes. The tenderness of the spine, especially over the first cervical vertebra, was wonderfully lessened; the feet were "immensely warmer." He now began to apply the Spinal Ice-bag at night only. I advised him to continue it to the lower two-thirds of the spine as before, but only during an hour; and then to apply it across the first cervical spine till the ice should be melted.

December 3rd.—He continued free from his malady "except," he said, "about twice a day I may feel two little ticks, lasting about a second each, not more—quiet beats, not painful," at the original seat of pain. The application of ice twice across the occiput made him feel sick. He was again requested to restrict the Spinal Ice-bag to the lower two-thirds of the spine, continuing its use each night till the ice should be melted.

January 18th, 1870.—Had continued free from pain while continuing to use the Spinal Ice-bag; but he said, "I find that if I don't use it the pain comes back. During three days at Christmas I went without ice altogether, and the pain became dreadful. I find that I can go over one day without using the bag, or two at a push, but I can't extend it to three." He was requested to continue the treatment as before.

May 3rd, 1870.—Had been free from pain during three months, and enabled to dispense with the Spinal Ice-bag during about ten weeks; but at length the pain returned on the left side of the face. He therefore resumed the use of the Spinal Ice-bag April 28th, and had had no pain until the morning, when he called upon me. He had had no ice the previous night. I requested him to apply the upper two cells of the Spinal Ice-bag to the lower two-thirds of the spine each night till the ice should be melted, and prescribed the following:—Ammonii chloridi, ℥iij.; aquæ camphoræ, ℥xij.; capiat., ℥ss., ter die.

May 24th, 1871.—He reported that he applied the ice as ordered during seven days, that after the third day the neuralgia ceased, and that it had never returned.

CASE 57.—*Temporary but Frequently Recurring Blindness followed by Intense Headache, and associated with Hyperæmia of the Retina.*

One of the most instructive and decisive proofs of the possibility of increasing or decreasing the peripheral circulation by modifying the temperature of the spinal region consists in the effects which may be thus produced on the circulation within the eye. I have obtained this proof and have been able, in several instances to improve vision by acting on the spine; and Mr. Ernest Hart, whose especial devotion to diseases of the eye renders his observations of the effects in question the more valuable, has experienced the truth of my assertion. He treated the case I am now about to describe, but as he did not publish it, it seems desirable that I should do so. The patient is the cousin and was under the care of a medical man by whom he was taken to Mr. Hart, and who both gave me an outline of the case and sent the patient himself to me. The following account I wrote down, Oct. 30th, 1869, from the patient's own lips:—

J. S., aged fifty, was attacked quite five years previously with a peculiar kind of temporary blindness, which continued until he was treated as hereafter described. A sort of mist came over his eyes in such a way that he could see only parts of objects—the parts seen became gradually less, until at length he could see "a mere nothing of them." Then the sight began to be gradually recovered; the parts of objects seen became gradually larger until he could see the whole—a perfectly dense mist however being left during from thirty to sixty minutes on the right side. The attacks occupied about thirty minutes coming on, and about the same time going off; both eyes were affected in the same way. The attacks were not preceded but were *always* followed by an extreme headache, almost incapacitating the patient from doing anything, and generally lasting from ten to twelve hours. The blindness recurred two or three times a week at least, but sometimes two or three times a day; in the latter case several days might elapse before another attack occurred; the patient suffered to this degree of severity during about two years. From childhood he had been especially liable to headache and rarely passed a week without it; his father suffered in this respect in the same way.

He had had much advice and had taken a great deal of medicine without benefit; he was at length taken to Mr. Ernest Hart, who treated him during several months by means of drugs, and also requested him to take freely of cream-cheese and clotted cream, but without any avail. I understood that Mr. Hart, as

well as other oculists who had seen the patient, stated that there was congestion of the retinal blood-vessels; at all events, after he had found that the treatment just mentioned did no good, he ordered the application to the cilio-spinal region of a 10-inch Spinal Water-bag containing warm water twice a day, each application being continued during half-an-hour. In the course of the first week during which heat was thus applied, the attacks were wonderfully subdued in respect both to frequency and severity, and at the end of about a month they had almost wholly ceased. The bag was applied a few weeks longer and then was left off altogether, and the patient continued free of attacks during nearly six months, and then only one was experienced. In about six months afterwards two more followed, and since then until the time when the patient called upon me—a period of twelve months—he had had no attack whatever. His headaches since the use of the Spinal Water-bag had been, he said, "comparatively nothing to what they used to be." His general health at the date of the report was very good indeed.

CASE 58.—*Fits of Agonizing Pain in the Chest and Abdomen; Neuralgia in the Right Shoulder and in various other parts of the Body; Extreme General Weakness, Emaciation, and Coldness; Excruciating Tenderness of the Spine; Arrested Growth.*

November 29th, 1869, I was consulted concerning M. C., a girl, aged twelve, who was afflicted with fits of intensely agonizing pains, chiefly in the chest, and sometimes in the abdomen, causing her to bend herself double, and to utter piercing screams which were often heard across the street. It was not clear from the description of the attacks whether the body was bent forwards voluntarily or involuntarily; her mother thought it was to ease the pain, but sometimes the patient was bent forcibly backwards. She never lost consciousness. Each attack lasted from twenty minutes to two or every three hours. The attacks recurred with terrible frequency. Latterly she had also complained of pain in the right shoulder, and of flying pains attacking in succession almost every part of the body. The child was extremely weak, pallid and emaciated, and was so exhausted as to be unable to walk more than a few steps. Though twelve years old, she did not look more than about six in respect to stature, but her mental expression denoted the experience of an adult. She did not suffer from headache, was intelligent, and able to read. When free from pain she slept fairly well. The lower extremities, from the knees downward, were habitually very cold. Pressure on the

second cervical and on the fifth lumbar spine caused immediate and excruciating pain. The child had been an out-patient at the Royal Free Hospital, and an in-patient both at University College Hospital and at the Children's Hospital in Great Ormond Street.

I requested the patient's mother to clothe her down to the wrists and ankles in thick flannel; to apply a 16-inch Spinal Ice-bag along the whole spine, during twenty minutes three times daily, and to give Olei morrhuæ, ℥j., Ferri et quinæ citratis., gr. iij, bis die.

December 18.—The child had had only two attacks since the treatment began, and both were much slighter than usual. Her appetite was wonderfully improved, and her mother thought that the second attack had been brought on by eating salt beef. She was warmer, heavier, and altogether better and more cheerful, and she was able to walk and play about every day. The treatment already prescribed was continued.

January 8th, 1870.—She had had no further attack; her legs and arms had become very warm. Her mother volunteered the remark that she needed less clothing at night; she ran about in the street, and this morning had walked nearly a mile. Sleep very good; tongue clean; appetite very satisfactory; bowels regular. I now requested the Spinal Ice-bag to be applied along the whole spine forty-five minutes twice a day. Medicines as before.

April 2nd.—The Spinal Ice-bag had been left off during a week, owing to a misunderstanding of my instructions, and during that week the patient had had three attacks; but since the use of the bag had been resumed, she had had none, and this morning she walked into my room, seemingly quite well. She looked plump and fresh, her cheeks having a clear rosy hue. I requested her mother to continue the ice as before but to stop the use of medicines.

June 11th.—The patient had had no attack. Her mother said "she has had no pain or ache whatever, in any shape or form." She had become wonderfully strong and walked about with perfect ease; she had a capital appetite; she slept well, and her bowels were open each morning. However, I advised the mother to continue the ice once daily if possible, and to give the child change of air.

In June, 1872, the patient was brought to me by her mother, who informed me that the child had had no relapse, and had continued strong and well. She looked thoroughly well, but continued of remarkably diminutive stature. The progress of this remarkable case was witnessed by Miss Firth, who is well known as a practitioner of midwifery, and who sent the patient to me in the first instance.

CASE 59.—*Headache; Pain in the Instep; Extremely Severe Uterine Neuralgia; Irregular and very Deficient Catamenia; Feeble Appetite; Indigestion; Flatulence; Vomiting; General Feebleness, Emaciation, and Coldness.*

Miss W. S., aged seventeen, who was first seen by me Nov. 21, 1869, began to menstruate two years and a half previously. The function had continued to recur, but at periods both irregular and abnormally far apart; six weeks often intervened, not unfrequently a longer time, and on one occasion the catamenial interval extended to four months. During her periods she suffered fearfully: throughout the first day she was in one continuous agony, which kept her, to use her mothers' expressive phrase, "rolled up in a ball;" the second and third days she suffered less and could move about. Her mother said, "the pain is so severe that though she is not given to crying she is constrained to cry." During the first day she also suffered from "spasms" and sickness. She had continuous nausea, and if she ate anything it was vomited immediately. She was liable to headache, chiefly in the mornings; she was much troubled with indigestion, feeble appetite, flatulence, and excessive constipation. Her constitution was remarkably feeble, and she spoke habitually in a low voice as if she had not sufficient expiratory force to sustain a conversation at the ordinary pitch; she was very thin, and her extremities were remarkably cold; "in fact," her mother said, "I might say they are never warm;" she suffered from childhood in both hands and feet from chilblains. About eight years previously she strained her instep, and it seemingly got quite well; "for years," her mother said, "I never heard of it;" but during the two years immediately before I saw her she had complained of the recurrence of the pain whenever her indigestion was worse than usual. The pain sometimes lasted for several days during which she was unable to walk at all. The lungs were healthy, except that at the base of the left lung the respiration was wavy and defective. There was no tenderness but marked curvature of the spine in the dorso-lumbar region, the convexity of the largest curve being leftwards. Pulse 90—very feeble.

The treatment of this case, which was chiefly by means of ice, and which was continued during several months under my personal superintendence needed, owing to the extreme delicacy of the patient, great and constant care. Along with the use of ice I prescribed iron, cod-liver oil, a course of gentle gymnastics under a skilled master, and regular systematic singing. The result proved thoroughly satisfactory. Already at the end of a

fortnight from the time when the treatment began, she was generally stronger and better, and remarked as a proof of her improvement, "I feel as if I could sit up straight." Her indigestion and flatulence were lessened; her bowels had become open daily; she reported herself warmer, though still disposed to be cold; the chilblains which had troubled her in November had disappeared; so also had the pain in the instep; and the breathing had become as clear and equable at the base of the left lung as it was in that of the right, indeed in both it had become clearer and more distinct. Gradually all her troubles subsided; her digestive power became normal; she ceased to be sick or to feel nausea at her "periods;" her bowels acted daily; she lost her headaches; the catamenia recurred monthly, copiously, and without any pain at all; she became generally warmer and stronger; and, in fact, at the end of four months, when my treatment of her ceased, her constitution had become wonderfully renovated.

CASE 60.—*Pain in the Right Temple, at the Back and Base of the Head, between the Shoulders, and across the Loins; Uterine Neuralgia, accompanied with Retching and Diarrhœa; Retarded, Intermittent, and very Deficient Catamenia; Profuse Leucorrhœa; Coldness of the Feet.*

January 13th, 1870.—Mrs. R., aged twenty-nine, complained of severe pains right across her loins, and between her shoulders. The former scarcely ever ceased, and were much the most intense at night. She suffered also from excessive pain at the back and base of the brain. This pain was induced by any ordinary noise, as well as by her own laughing or singing. She had often pain, too, in the right temple. Each menstrual period was preluded during about a week by a great increase of the lumbar pain, and by pain in the womb. "About the day before" the flow began diarrhœa set in, accompanied with pains, which, she said, almost drew her double; and sometimes during her periods she suffered from prolonged retching.

Appetite "very bad indeed;" bowels "pretty regular," but more confined than formerly; was troubled with profuse leucorrhœa, which had lasted several years; the menses recurred about every fifth week, and lasted, "on and off," less than two days; the flow was intermittent: she said,—"Sometimes I rise out of bed in the morning and see something, and then see no more all day." The discharge was so slight that she needed only one napkin during her period. She suffered "very much" from coldness of the feet: her husband couldn't bear to feel her feet at night. Prior to her

marriage, ten years previously, she menstruated copiously, and enjoyed thoroughly good health. Had a child nine years previously; none since. Pulse 64. She was treated exclusively by means of the Spinal Ice-bag and infusion of calumba.

Jan. 25th.—The pains across the loins and between the shoulders had quite ceased; had still a little pain beneath the shoulder-blade; the pain at the base of the brain was less violent, and that in the temple was less frequent; the leucorrhœa was much lessened; appetite improved; bowels "relaxed this two or three days."

March 18th, 1870.—The pains across the loins and between the shoulders had never returned; the pain in the back and base of the head had also ceased; the pain in the right temple recurred very rarely; leucorrhœa "very much lessened;" menstruated to the day at the end of a month last time, but the flow was not perceptibly increased. It was not preluded by any pain in the back; the pain in the womb was much lessened; she had no diarrhœa, and did not retch at all. The feet had become quite warm; appetite much improved; bowels quite regular. Treatment discontinued.

CASE 61.—*Facial Neuralgia; Inadequate Sleep; Coldness of the Feet.*

Mrs. B., aged twenty-seven, who consulted me by letter Jan. 14th, 1870, suffered from trigeminal neuralgia, the left side of the head and face being chiefly affected, and the left eye and cheek-bone most especially; sometimes, and often suddenly, the pain left the left cheek and occupied the right. The pain, which was extremely severe, and prevented the patient from sleeping, was most violent from ten p.m. till three a.m. The pain first came on in March, 1868; it continued during some months, and left her after the hot weather set in; it returned about Christmas of the same year, troubled her more or less during the winter, and again left her in the summer. Her bowels had a tendency to be costive, and she "suffered greatly from cold feet." Catamenia normal. She had several decayed teeth.

I prescribed the application of the eight-inch Spinal Water-bag—temperature 115° F.—to the cilio-spinal region each night when the attack was about to come on, and at other times whenever she felt any warning of impending pain. In January, 1871, her husband informed me that "the application of the bag generally soothed the pain," and that that winter, "for the first time for three winters," there had been "only slight premonitory twinges, which had not come to any head." I never saw the patient, and prescribed for her, by letter, but once.

CASE 62.—*Headache; Backache; Ovarian Neuralgia; Gradual and Complete Cessation of the Catamenia; Profuse Leucorrhœa; Habitual Coldness of the Feet.*

Feb. 12th, 1870.—Mrs. F., aged twenty-five, complained of great and persistent pain in the lumbar region, and in the right hypogastric region; she also suffered from headache—at the vertex, from frequent sickness, and profuse leucorrhœa; had not menstruated during the previous three months. Before her marriage, seven years previously, her menses were copious, and without pain; since that event they had gradually lessened in quantity and duration, and had been accompanied with intense pain: latterly, they generally lasted only one day—never more than two—and during the whole period she suffered acutely. Since their cessation three months ago her general health has become increasingly impaired, and the ovarian pain has become especially distressing. Appetite "very bad;" tongue fairly clean; pulse feeble; feet habitually very cold. She was treated exclusively by the Neuro-dynamic method—no drug being given.

Feb. 18th, 1870.—Pain in the back and in the right ovary lessened; leucorrhœa lessened; sickness lessened; appetite improved. The use of the ice had caused no discomfort.

March 30th.—The pain in the lumbar region had quite ceased; the ovarian pain was scarcely felt; headache and sickness quite gone; leucorrhœa had become so slight that she said,—"It's nothing to speak of now." Felt decidedly warm all over. Appetite greatly improved. Treatment discontinued.

CASE 63.—*Neuralgia of the Ears and Face; Headache; Feeble Appetite; Deficient Catamenia; Leucorrhœa; Coldness of the Feet.*

April 21st, 1870.—Mrs. C., aged forty-six, applied to me when suffering from unceasing pain in the head—"all over it." The ears and teeth were extremely painful: the pain in them seemed to correspond, she said, with that of the head. The pain had lasted five or six months, and was so horribly severe at night that she often walked about the room, being unable to rest in bed. She said, "I get about a quarter of an hour's sleep, and then lie awake nearly all night." The appetite was "very bad;" but the bowels were regular. She had menstruated very slightly three weeks previously; and during the previous six months the flow had been very deficient. Before that period it was copious. She suffered very much from coldness of the feet, and had been troubled with

leucorrhœa during the last two or three years. Pulse 80. She had pleurisy, and was nine weeks in hospital a year before she consulted me. She was treated by means of the Spinal Ice-bag until the end of May, no medicine being given. She improved steadily, and some time before that date had become quite free from both neuralgia and headache.

June 18th—nearly three weeks after the treatment had been discontinued—the patient had had no return of pain of any kind; her appetite was improved; the catamenia had become more copious, and, respecting her leucorrhœa, she said it was "nothing compared with what it was" before she came under my care. Referring to the general effect of the treatment, she remarked, "It's done me a wonderful deal of good."

CASE 64.—*Intense Headache; Infra-mammary, Ovarian, and Uterine Neuralgia; Severe Backache; Giddiness; Retarded and Deficient Catamenia; Profuse Leucorrhœa; Varicose Veins; Great Coldness of the Feet.*

June 18th, 1870.—Ann C., aged eighteen, domestic servant, complained of pain in the left breast, in the left ovarian region, and in the lower part of the back: she had been troubled in this way during about eight months; she added, "And I suffer to stupefaction in the back part of my head;" she often felt giddy; menstruated about two days, and very slightly, at intervals of five, six, and seven weeks; had extremely severe menstrual pains, lasting about forty-eight hours; leucorrhœa very profuse, and increasingly so during the previous nine months; the veins at the upper and inner side of the calf were in an extremely varicose condition, and the leg was often very painful; her feet were markedly cold. She was treated solely by the Neuro-dynamic method.

June 28th.—The pain in the breast had gone, and the backache had much lessened. She said, "I've not seen none scarcely of them whites since I've used the ice. My leg is not so painful as it was. My feet are very hot,—just as if they were inside of an oven."

July 5th.—The pain in the left breast had not recurred; that in the left ovary had quite ceased. She only felt the pain in the back now when she awoke in the morning. The pain in the back of the head and the giddiness were much lessened. Menstruation came on June 30th, and continued three days. She found that without the Spinal Ice-bag she had great pain; but that when she got up, replenished it with ice, and reapplied it, it gave her immediate and great relief. The leucorrhœa had quite ceased.

June 27th.—Was quite free from pain. Had menstruated again much more copiously, and after a shorter interval than formerly. The menstrual pain lasted during one night only; but she was sure that if she could have got ice she should have had no pain, because at the previous period the ice immediately stopped the pain. The leucorrhœa had not returned. The treatment was discontinued at this date because she was so much better, and because, as she confessed, she was unable to pay for more ice.

CASE 65.—*Violent Headache; Intense Cutaneous Irritation; Sickness; Drum-belly; Profuse Leucorrhœa; Prolapsus Uteri; Swelling of the Lower Extremities; Prolonged Absence of Perspiration.*

Mrs. B., aged forty-eight, consulted me June 20th, 1870, when suffering from a copious erythematous eruption (*erythema papulatum*) diffused over her face, neck, arms, and hands; she also complained of violent headache, and of retching and vomiting, which were especially troublesome each morning. When nine years old she was attacked by a dog, and was extremely frightened; she seemed to lose all her strength, became speechless for a time, and, when she recovered her power of speech, she was unable to speak without stuttering until about three years after her fright. About six or seven days after it she suffered from an eruption like that which troubled her when she consulted me. Ever since the first attack she had had, on an average, two attacks of the same disorder each year. "Before each attack I seem," she said, "to sicken for it three or four weeks, and I have headache—a kind of swimming or dizziness, often taking away my eyesight, and making me almost delirious." She frequently experienced, she said, a sudden stiffness in her limbs during the same preliminary period. She declared that she never perspired, and that so far as she could remember she never had since the period of her fright, however hot the weather might be. She added that when she got over-heated her skin burnt in an indescribable way, making her feel as if she ought to be bled, and that afterwards it cracked in those places which had been most troublesome, as if it had been inflamed. This statement was confirmed by her sister, whom I also saw when the patient first consulted me. She complained, too, that her abdomen was habitually and largely swollen, and that this disorder distressed her greatly. She had suffered from leucorrhœa for many years: her business compelled her to stand during the greater part of each day, and the discharge was so profuse that it saturated her stockings, and often

compelled her even to change her boots. She menstruated regularly, and with but little pain. She suffered from habitual prolapsus uteri, the mouth of the womb often protruding through the os vaginæ. Aching in the back and a distressing sense of bearing down were incessant; she was also much troubled with swelling of the legs every day. I ordered the application of ice along the whole spine during sixty minutes three times a day—the morning application being continued during and after her breakfast, which, on many previous mornings, she had vomited.

June 21st, 8 p.m.—The patient reported:—"No sooner had I applied the ice than the itching ceased almost instantaneously, and the soreness [of the parts where the rash had broken out] ceased with the itching—both ceased. The ice was very comfortable—quite refreshing." It was applied on the first occasion in the evening. The patient slept well, though the night was extremely hot. She awoke heated and irritable; "but," she said, "as soon as I put the Ice-bag on again the itching ceased directly, as quick as I am telling you. Before dinner I drank some stout, which brought the itching on again, and immediately I applied the ice the irritation ceased. This evening I had no irritation whatever, but reapplied the bag, because I thought I ought, and should like to do so again." Not only had the irritation and soreness ceased, but quite two-thirds of the eruption had faded away. The patient said, "The relief I felt from the ice I can't describe." She had the ice on during breakfast, dinner, and tea, and reported,—"I had no sickness whatever—not the least of it." She was extremely astonished to find that she had had no leucorrhœa to-day: she said, "I have never kept so clean and comfortable during any day for eleven years past." I ordered the Spinal Ice-bag to be continued as before during an hour three times a day.

June 22nd, 8.30 p.m.—The patient had felt no itching since that caused by the stout yesterday. Last night she took both beer and wine. She had "a very comfortable night, and woke this morning full of energy." She was still quite free from both sickness and headache. She said that had her present attack been allowed to continue during the hot weather then prevailing, she knew, from previous experience, that without the ice she would have been half delirious, and that having had a very bustling, anxious day, she would have been obliged to go to bed. With the exception of a little swelling over the left malar bone, there was scarcely a trace of the eruption left. The leucorrhœa had quite stopped; and the swelling of her legs, which, as she said, had been an every-day experience, had not occurred during the previous two days. She was perspiring freely, and in consequence was feeling, she said, "unspeakable relief." The sweat was gently diffused all over her; the bearing-down was lessened.

June 23rd, 8 p.m.—The eruption was wholly gone, and the patient had remained free from discomfort of all kinds; she had observed on her linen only one spot of leucorrhœal discharge; and she continued in gentle perspiration. I requested the ice to be applied only twice daily, morning and evening.

June 27th, 9 p.m.—The patient continued free from leucorrhœa till the previous day, Sunday; then, having no ice, she could not use the Spinal Ice-bag, and then the discharge recurred in almost full force. She applied the ice to-day as ordered, and to-night she said that since the first application to-day she had had scarcely a trace of the discharge; she was still free from sickness and head ache, and the "bearing-down was much lessened." The treatment previously prescribed was continued.

July 4th.—The patient reported herself quite well. The skin was clear, and her complexion and general aspect were much improved. She said, "I feel different,—I can't describe it; I feel more light-hearted; I feel that I can do anything; I perspire nicely, and the bearing-down has ceased."

July 23rd.—She had continued well in all respects, except that during the previous five mornings she had observed a slight sanguineous stain on her linen, just as if she were beginning to menstruate. Her abdomen was now so reduced that she was quite proud of her improved appearance. She had no "bearing-down whatever;" the swelling of the legs had not recurred, and she continued to perspire freely. Throughout the period of treatment the bowels had acted daily.

July 29th.—The slight sanguineous discharge had quite ceased. The patient said that, in consequence of the state of her womb before I began to treat her, she could not lift any heavy weight, but that now she could do so with ease, and that she was altogether much stronger than she had been for many years before. During the five weeks of treatment I prescribed no medicine whatever.

Comment.—This was the first case of an erythematous eruption which I had treated, and probably the first that had been treated by means of the Spinal Ice-bag. Holding the views I have elsewhere expressed concerning the part played by the nervous system in the process of textural nutrition generally, and therefore in the nutrition of the skin, I was prepared for the result recorded; indeed, it was because I anticipated it that I eagerly persuaded the patient to allow me to treat her as I have described.

The cessation of the chronic swelling of the lower extremities recorded in this case may, perhaps, be accounted for by saying that when the general health of the nervous system was improved, its influence over the textural nutrition, and therefore over the

systemic capillary circulation was sure to be improved also. I offer this suggestion as a provisional explanation, which seems to be satisfactory, but which increasing knowledge may, of course, prove to be incorrect.

The most remarkable phenomenon in this remarkable case was, however, in my opinion, the production of perspiration by the use of the Spinal Ice-bag. I call this phenomenon the most remarkable because, as a general rule, while heat along the spine tends to promote perspiration, ice tends to stop it. I explain the production of perspiration by means of heat along the spine by assuming that what I call the "positive motor nerves," presiding over the sweat-glands, are, by the influence of the heat, rendered additionally active; but, of course, this assumption involves another, viz., that cold to the spine operates in the contrary way, and as a matter of fact it generally does so. But here is a case in which ice along the spine caused a person who, during many years, had suffered much from the want of perspiration, to perspire freely. How is this? I can offer no explanation with confidence that it is correct. To me the phenomenon remains as mysterious as it is interesting, and shows how much we have yet to learn of the nature of the relation between the nervous system and the processes of secretion, especially the process of perspiration. It has, however, seemed to me possible that since the fright and shock sustained by the patient, the delicate muscular tunic of the blood-vessels supplying the sweat-glands, or it may be of the ducts of those glands, had remained in a condition of chronic spasm, and that the effect of the ice, by abolishing the morbid irritation of the vaso-motor nerve centres, consisted in releasing that muscular tunic from the influence of that irritation, and thus in allowing it to assume that state of healthy dilatation which is a necessary condition of normal perspiration. I must add, however, that this is not the only case in which perspiration has been produced by the use of ice, but it is the only case, so far as I know, in which the patient was previously suffering from a burning skin. Of course, in cases in which the skin, before treatment, is markedly anæmic and cold, owing to vigorous contraction of its blood-vessels generally, ice to the spine, by putting a stop to that contraction, will cause the sweat-glands, as well as the other parts of the skin, to be supplied with blood, and will thus make the skin warm, and re-establish perspiration at the same time.

CASE 65A.—*Violent Headache; Cutaneous Irritation, with Eruption; Sickness; Leucorrhœa; Prolapsus Uteri.*

Mrs. B., the patient whose case is described in the immediately preceding narrative, came to me again in April, 1872, and stated that she was suffering from an eruption like to that of which she complained when she first came to me. She was also suffering in like manner as before, from intense headache, sickness, leucorrhœa, and prolapsus uteri. The eruption was chiefly confined to her face, the exposed part of her neck, her arms and hands—on the latter the elevations were studded together much the most closely. The accompanying irritation was scarcely as troublesome as it had been on the occasion when she formerly consulted me. Her headache during the onset of the eruption was so peculiarly intense that she feared to come to me lest she should fall on the way. She stated that she had as a rule remained, during the period since her previous attack, quite free from both leucorrhœa and the bearing-down of the womb, but that if at any time either or both of them came on, she resumed the use of the Spinal Ice-bag, it proved as completely effectual in remedying them as it did when she first applied it.

On this occasion I asked Dr. Liveing to see the patient with me, and then requested her to apply the Ice-bag along the whole spine four times a day, and to meet us two days afterwards at his house, so that we might see the result. We saw her, and to my surprise found the eruption in much the same state as it was in before the Spinal Ice-bag was applied. On inquiry, I ascertained that it had not been applied at all along the most important part, viz., the cervical spine, but only along the dorsal and lumbar regions. The continuance of the eruption in the same state as before, and of the itching which she complained of was thus, as it seemed, fully accounted for. She was then carefully instructed to apply the ice thoroughly to the cervical region, and especially to allow the air, which accumulates at the top of the bag, to escape from time to time, so as to permit the ice to be applied closely to the spine. Having duly fulfilled these injunctions, she presented herself to us the following morning, and reported that, as last applied, the Spinal Ice-bag had again quickly allayed the cutaneous irritation, and that she felt in all respects better. The eruption itself was also rapidly declining, and, the treatment being continued, soon completely disappeared. Owing to the presence of leucorrhœa and prolapsus uteri, the Spinal Ice-bag was used about three weeks, twice a day, after the eruption had ceased, and at the end of that time both those maladies had quite ceased also.

CASE 66.—*Great Pain and Sense of Pressure in the Head; Extreme Drowsiness; Intercostal Neuralgia; Gastralgia; Severe Menstrual Pain; Retarded and Profuse Menstruation; Leucorrhœa; Coldness of the Feet.*

Amelia R., aged twenty-nine, a cook, came to me December 14th, 1870, complaining of pain over the surface of the left wall of the thorax: the pain was not stationary, but moved about, and was intermittent. When she moved her head quickly, or looked up suddenly, she also felt a dull pain at the pit of the stomach; and a somewhat similar pain was produced below the left mamma each time I pressed on the lower dorsal spine. She also suffered every day from a sense of pressure and great pain at the top and back of the head, with a feeling of extreme drowsiness. She menstruated every sixth or seventh week profusely, and with great pain in the hypogastric region: this she had suffered from during many years. She was troubled with leucorrhœa occasionally; and her feet were often very cold. She had been treated by three medical men in succession without being benefited. I advised her to apply ice along the entire spine sixty minutes each night.

Dec. 29th.—She reported that she had not felt at all for some days any of the pains she complained of December 14th: she could now move her head in any direction without causing pain; even pressure on the spinous processes would not cause pain below the left mamma, as at the previous date; pain and pressure in the head had completely gone. She began to menstruate on the 24th inst., which was only a month after the previous period. She said—"I had very little pain—I don't know whether it is because I used the ice, but I don't know when I've had so little pain." She was quite sure she had had much less leucorrhœa since using the ice; and said,—"I feel much better, in all respects, and stronger." I now requested her to apply the ice, in one cell only of the Spinal Ice-bag, to the dorso-lumbar region each evening, and to take ol. morrhuæ, ℥ij., b. d., also ferri et quinæ cit., gr. v.; aq., ℥ss., b. d.

Jan. 5th, 1871.—The patient declared she had felt no neuralgia whatever during the previous fortnight. "In fact," she said, "I feel quite well, with the exception of this pain in my chest"—a slight pain at the apex of the left lung. I requested her to continue the ice to the lower third of spine, and the medicine as before.

Jan. 12th.—Reported herself quite free from pain, and well in all respects; she was stouter and stronger, and quite cheerful, whereas formerly she suffered from depression of spirits.

Jan. 26th.—Began to menstruate exactly at the end of four weeks from the beginning of her previous period. The total amount of the flow had lessened; she felt well in all respects.

She said,—"It's astonishing how much stronger I've got—not for the last two years have I been so strong as during the last six weeks." Treatment being no longer necessary was discontinued at this date.

CASE 67.—*General Neuralgia with Total Suppression of the Catamenia during Eleven Years.*

Mrs. ——, aged forty-one, whom I saw for the first time, Jan. 16, 1871, was suffering from general neuralgia: she said, "It's over every nerve in my body, I can't express it in any other way." The chief seats of pain were around the ears, now on one side now on the other; along each of the four extremities—though rarely at the same time; in the right side; and along the back. The pain in the back was at once the most agonizing, and the most continuous. The pains generally consisted of a long succession of intense and quickly recurring paroxysms with more or less severe aching during the intervals; sometimes when a paroxysm came on while she was walking she felt as if she must fall and was obliged to get into a cab immediately; she felt, she said, as if the flesh were being torn from the bone. After she came under my care I had frequent opportunities of witnessing her suffering which she bore with wondrous heroism: she wrestled most determinately with her enemy which seemed as if intent on forcing from her a cry of agony which, as a rule, she resolutely suppressed; but sometimes, in spite of her, the tears suddenly started from her eyes, and occasionally an audible expression of pain when extraordinarily sudden and acute escaped her. By no effort of her will, however, could she prevent the spasmodic and quivering movements of her limbs which accompanied and revealed her sufferings. Indeed, the voluntary motor nerve centres had become largely involved in the disorder which affected her, a fact proving at once how extensively the disease had become rooted in the spinal cord and how difficult would be its eradication. The hands and ankles, and sometimes the face, swelled when the pain was more especially concentrated upon them. If she played the piano the hands swelled almost immediately; she was therefore obliged to give up playing altogether. When the head and face were painful there was often considerable lachrymation, and, also, secretion from the nasal mucous membrane. She was generally free from headache, and though almost all her teeth were carious she never suffered from toothache. Her chest was healthy. The appetite was extremely feeble, and sickness was easily induced. The bowels were prone to be constipated; and she suffered "very much" from flatulence, most so at night when she swelled

very much. She had not been troubled with leucorrhœa during the preceding six years. The menses had been completely suppressed during the preceding eleven years. She suffered much from coldness of the lower extremities, the knees as well as the feet being particularly cold. Her tongue was fairly clean, and her pulse, which was 80 per minute, was very steady. I was rather surprised to find that her spine was especially tender on pressure only in the lower dorsal region.

She had her first child when she was twenty-four years old, and her second when she was thirty, or eleven years before I first saw her. A year or two before the birth of the second child she suffered from neuralgic earache, and during her second pregnancy she was troubled with neuralgia of the limbs. About three months after the birth of the child she began to feel *very severe* pain in the dorso-lumbar region, so severe that on one occasion it seemed to paralyse her, and she had to be carried to her bed from a carriage in which she was riding; the pain continued with terrific severity for three days during which she kept her bed. A few weeks afterwards she was attacked with severe pains in her legs. After this period pain recurred at intervals of a week or of several weeks sometimes in one part of the body, sometimes in another. During the ten years before she consulted me she had rarely passed more than a few hours, and never more than a few days without pain which moved from one part of the body to another, but which was always especially severe when it attacked her back and limbs. Her sufferings had reached their maximum severity six years before I saw her, and continued with the brief intervals of respite already mentioned until that time. She menstruated quite regularly and naturally before she conceived the second time, and she suckled the child—although the quantity of milk was insufficient; but on the occasion of the severe attack when she was carried from the carriage to her bed she was advised to cease suckling; she did so, and from that time she had never menstruated again. She had no pain in the pelvis, and neither any displacement nor any organic disease of the womb could be discovered. She was formerly remarkably well nourished and quite plump; but during the five or six years before I saw her she had steadily decreased in flesh and had become extremely thin; the muscles of her extremities were extraordinarily attenuated.

Notwithstanding all this suffering her constitution was really so little impaired that when she was freed from pain for only a few hours she seemed to recover at a bound her wontedly high spirits, and even her physical vigour so as to be able to walk several miles.

She had had the utmost help which medicine could give, and

every variety of treatment which could be suggested by the several medical men who had attended her. Prussic acid, Indian hemp, arsenic, strychnia, belladonna internally and externally, subcutaneous injections of morphia, galvanism, the actual cautery applied along the spine twenty-five different times, leeches applied to the womb six times, and the waters of Harrogate and of Aix-la-Chapelle, besides various other remedies had all been tried and had proved of no real avail. Such being the case a merely palliative treatment chiefly by means of opium and alcohol was finally resorted to, and I was assured by the patient that for about three years immediately before I saw her such sleep as she had had each night had been obtained by the help of some narcotic agent—generally laudanum.

She came to London for the express purpose of submitting to my treatment which was continued from the date of her arrival, Jan. 16, until the middle of May, 1871, when she returned home. The use of narcotics, and of stimulants (excepting a glass of beer with her food or a small quantity of wine occasionally) was rigorously withheld. The active treatment consisted mainly in the regular application of ice to some part or to the whole of the spine as from time to time having regard to the changing symptoms, I thought most expedient; a systematic and prolonged use of warm baths; and the administration of various medicines which I thought might co-operate to achieve the end in view. Galvanism (the continuous current) was also used for a short time, but proved of no real service.

The being deprived of narcotics, and of alcohol (except in the limited quantities just mentioned) was felt by the patient at first as a great trial, which, however, the systematic use of the Spinal Ice-bag rendered tolerable; she soon began to sleep without their aid, and before many weeks had elapsed she slept normally throughout each night—often during six, seven, or even eight hours—sometimes even without waking once. As a general rule, liable, however, of course, to exceptions, this habit, after being re-acquired, continued while the patient remained under my immediate care.

The pains she suffered gradually became less severe: she ceased to have pain in her back March 2nd, and became free from pain in all parts in the middle of May.

The menstrual function was re-established April 22nd; and, having ceased suddenly immediately after I galvanized the face, neck, and upper part of the spine in the evening of that day, recurred during the daytime of the 24th.

The patient's appetite was thoroughly restored, and she gained flesh to an extent equally gratifying and surprising. She told me, May 13th, that her cousin, who had not seen her since she came to London, visited her on that day, and that he exclaimed

"How stout you've become! I should not have known you. How wonderfully better you are looking!" And her husband, when he came to fetch her home, remarked, "I don't remember her at any time to have had so good an appetite as she has now." He also said, "Certainly, I don't think she has had so much flesh on her as she has at present for five or six years past." Moreover, after their return home he wrote me a thoroughly satisfactory report of her.

But soon after she was settled at home she began to suffer again severely, though she was still able to say, "My nights are VERY good." She returned to London in August, and again came under my personal care. She did not progress so rapidly on this as on the former occasion; but she improved greatly: she generally slept well, she recovered much of the good condition she had when she left London in May, and in December she passed many days either entirely free, or almost entirely free, from pain. The menses continued to recur, and at nearly normal intervals; on the last two occasions of which I have notes they recurred on the 29th of October, and again on the 19th of November, so that three weeks elapsed between the periods of their recurrence. On the last occasion they continued five days, and were especially copious and of thoroughly healthy colour.

It was decided that she should again return home; but before the date fixed for her return arrived, she had a sudden relapse: her pleasing and healthy expression of countenance changed, her face appeared dark and congested, and her sufferings became very severe again. Indeed, the change was so rapid and so great that I could not help thinking it must have originated in some mental trouble. She went home at the time appointed, and I regret to say that when I heard from her last she was still suffering (to what extent I do not know), notwithstanding that the menstrual function has been thoroughly re-established.

Comment.—This case presents some remarkable and peculiarly instructive features. Although the menses had been wholly suppressed during eleven years, the patient suffered rarely, if ever, from headache; although both her jaws were full of decaying teeth—most of them mere stumps, some of which had abscesses at their roots—she never suffered from tooth-ache; and although she had long suffered excruciating pains in the back, together with suppression of the menses, she had not been troubled at all during the five or six years before she consulted me by leucorrhœa. Seeing the state of her teeth, I thought it probable that, though she felt no pain then, they produced a great amount of irritation of the nervous system, and thus favoured the continuance, if they did not cause, her neuralgia; accordingly, I advised their extraction when she came under my care the second time.

But though she said she experienced a feeling of relief of a kind she could scarcely describe, and, after being supplied with artificial teeth, could masticate her food far more thoroughly than before, the improvement effected in her mouth exerted no appreciable influence in lessening her neuralgic sufferings. Again, the long suppression of the catamenia might fairly have been regarded as an adequate proximate cause of those sufferings, and yet the complete re-establishment of the menstrual flow which I anxiously sought to effect failed to put an end to them, although it undoubtedly conduced to lessen them, as well as to improve the general health of the patient.

It seems to me that the facts of this case forcibly illustrate the truth which I have elsewhere insisted on,—that when a morbid condition of the nervous centres has been induced, and has persisted a considerable time, that condition is apt to become established in the organisation as a *habit*, and, as such, is likely to remain even after the complete removal of the cause which originally gave rise to it. Whether in this case the carious state of the teeth and the suppression of the menses operated jointly or separately as causes of the neuralgia, or whether it was due to some other cause, it is manifest that the disease was so wrought into the nervous centres as to have become, as it were, "a second nature" obstinately persisting after its seemingly probable causes had been removed; and that, having assumed an independent existence, it needed, after their removal, long and patient battling with in order to effect its thorough destruction. This consideration made me regret that when, on the first occasion, it was thoroughly subdued but not yet destroyed, the patient returned home in May, 1871 : had the treatment and *régime* then practised been vigorously persisted in under my personal superintendence during a few months longer, the neuralgic habit of twelve years' duration might, I think, have been abolished; but the patient's return home so speedily after it had been subdued enabled it to acquire a new lease of life, and when she returned to me a great part of the battle, which had already been fought successfully, had to be fought over again. And on the second occasion I experienced a similar disappointment.

But notwithstanding the absence of complete and permanent success in this remarkable case, the experience of the efficacy of Neuro-dynamic medicine which it afforded is very striking and instructive : the terrific pains which had tormented the patient during a long series of years were wonderfully subdued ; she was enabled to dispense with those previously necessary evils—narcotic medicines—and to have from six to eight hours of healthy, refreshing sleep almost every night ; and her menstrual function, after eleven years of total suppression, was completely re-established.

CASE 68.—*Headache; Hypogastric Neuralgia; Suppression of the Catamenia; Faintness; Leucorrhœa; Coldness of the Feet.*

February 4th, 1871.—Miss G., aged twenty-six, single, complained of headache, lasting several days together, and of frequently recurring and severe pain in the hypogastrum. She was also liable to sudden attacks of "faintness," when her face became pallid. She had menstruated since the previous November. She suffered from remarkable coldness of her feet; her hands were clammy, and she was wont to feel cold generally. Tongue fairly clean; appetite feeble; bowels regular. Pulse 82.

During three or four years before her catamenia were suppressed altogether they were very deficient—only two napkins being needful at each period; and *on each occasion she suffered intense pain in the forehead, and in the lower part of the back during four or five days.* I prescribed the application of the Lumbar Ice-bag to the dorso-lumbar region during an hour three times a day. No medicine.

March 6th.—Her headache had lessened, and her hypogastric pain had quite ceased; the leucorrhœa had also ceased. Her feet had become warm, and she slept much better than she did before using the ice. Pulse 87. She was now requested to apply ice in each cell of a twenty-inch Spinal Ice-bag along the whole spine each morning, and in the upper two cells of the same bag along the lower two-thirds of the spine each afternoon and evening during ninety minutes. ℞ Infusi calumbæ, ℥j., bis die.

April 3rd.—The headache ceased early in March, and, after recurring slightly on the 18th and 19th, had not been felt again. Her appetite had improved. She was requested to continue the ice as before. ℞ Olei Jecoris, ℥ij., bis die.

May 1st.—Had continued free from headache until this date, and felt better, she said, after each application of the ice. She was requested to continue it and the cod-liver oil as before. ℞ Pilulæ aloes et ferri, gr. v., omni nocte.

May 22nd.—Menstruation began on the 19th, and continued till the night of the 21st. The discharge was of normal colour, and more copious than formerly—four napkins being necessary. *During this period she had pain neither in the back nor in the womb.* Prescription same as before.

July 2nd.—An intimate friend of the patient called to inform me that she was in every respect quite well, and would have called herself had she not been obliged to go out of town in order to make arrangements respecting her coming marriage.

CASE 69.—*Painful Excitability of the Spinal Cord; Headache; Facial, Cervical, and Uterine Neuralgia; Nausea and Vomiting; Diarrhœa; Leucorrhœa; Deficient and Intermittent Catamenia; Coldness of the Feet.*

Miss T., aged twenty-five, who consulted me 27th February, 1871, was suffering from excessive excitability of the whole spinal cord. She had measles when fifteen years old, and since that time she had been troubled with neuralgia of the right temple and along the neck. It had been increasing in frequency, and, for full six months before she came to me she had suffered every night from the pain. Generally it did not begin till she went to bed, but if she was very tired it began earlier: it lasted from two to four hours. She said,—"It seems to go back from my temple into my neck, and then it goes away." During the presence of the pain the affected parts were especially tender. She suffered from ordinary headache about once a week on an average; but at her catamenial periods it was very severe for two or three days successively. She had pain in the lower half of the spine, extending round to the left side of the abdomen, "more or less, nearly always," but it was greatly intensified at her catamenial periods. She had excessively severe pain in the womb, as well as in the back, during two or three days at each period, which lasted from seven to ten days. The flow, however, was both intermittent and deficient. During each of her periods her stomach and bowels were extremely irritable: she felt nausea the whole time, if she ate anything she vomited immediately, and she was always troubled with diarrhœa. Her appetite was habitually very feeble; her bowels were generally rather relaxed; she was troubled with leucorrhœa during the whole of each catamenial interval "very much;" and her feet were almost invariably cold. Her power of walking was very slight: for a long time she could only walk a few yards at a time; latterly she had been able to walk during ten or twenty minutes, but not without feeling fatigue. Pulse 100. Pressure on the sixth and seventh cervical vertebræ caused agony, and pressure on every part of the spine was almost intolerable. I prescribed in the first instance heat along the upper and cold along the lower part of the spine, and afterwards the application of ice only.

March 10th, the patient had just passed through her menstrual period: she had had less pain, less sickness, and no diarrhœa; she was moreover able to eat, and to keep her food. The warm water bag made her feel sleepy. Pulse 80, soft and full.

March 27th.—She had continued the use of the Spinal Ice-bag

as prescribed, except during three days, when the ice was omitted. She said,—"I like the ice : it sends me to sleep, and, if applied when the neuralgia is bad it generally relieves it."

April 19th.—She reported herself very much better : she had been quite free from neuralgia about half the whole number of nights which had passed since her previous visit. Had again been "unwell," and again, was "not nearly so sick" as formerly. The use of the Spinal Ice-bag was continued throughout her period, and "comforted her," she said, "very much." The pain in her back had lessened, and her feet had become "decidedly warmer."

May 8th.—Had had no neuralgia at all for a week together—an experience she had not had for months before. Her headache had become less frequent. The back was still less painful, and had become stronger; she could walk better. During the preceding fortnight the bowels had been opened only once a day. The leucorrhœa had greatly lessened, and the increased warmth of her feet continued.

I regret that I did not see this patient again : she stayed in or near London while I treated her; but she was obliged to return to her home in the North of England immediately after I last saw her. I gave her such general instructions as seemed to me expedient concerning her further use of the Spinal Ice-bag; but what further progress she made towards complete recovery I never heard.

CASE 70.—*Headache; Singing in the Ears; Distressing Hyperæsthesia of the Right Hip; Neuralgia of the Testicles and Perinæum; Weakness and Emaciation of the Lower Extremities; Partial Impotency; Excessively Frequent Micturition; Constipation of the Bowels.*

William T., aged fifty-nine, came to me on March 1st, 1871, complaining of a distressing sensation immediately above one of his hips, "as if a plaster covering a raw surface were being torn off." He had also acute darting pain in the perineum and both testicles, especially when he was engaged in lifting any considerable weight. He urinated with excessive frequency; and was obliged to get up three or four times each night to pass water. He said,—"I've pain all down my legs at times"—sometimes for several days together and becoming much worse at night. Complained also of violent pains in the head, and "singing in the ears" when he stooped. The legs and arms had become weaker and smaller than formerly : he could stand on each leg separately with difficulty.

Bowels constipated, except when he had recourse to aperients. Sexual power very much impaired. The patient was employed in an oil merchant's business, and had frequently to lift iron "drums" of oil amounting to 56 lbs. weight. Two years previously, when suddenly lifting one of these drums, he felt a "very, very acute pain like a crick" in the lumbar region of the spine, which caused a feeling of stiffness for a few minutes, and so incapacitated him generally that he was obliged to go home: he was disabled from work altogether during the week following. Previous to the accident the patient enjoyed good health in every respect—the bowels acting regularly each day.

The treatment in this case was solely by means of ice, and was continued only twenty-three days. At the end of that period, viz., March 25th, the patient reported that the sensation of soreness over the hip, and the pain in the perineum and testicles were *quite gone*. Urination much less frequent; during several nights previously he had not got up at all to make water. The pains and weakness in the limbs had ceased, "except perhaps a little bit of a twitch sometimes" when he lifted anything. He had had neither pain in the head nor singing in the ears since the end of the first week of treatment: he declared that he did his work as well as ever he did in his life, and walked home a mile to dinner, and a mile back again, whereas, before I saw him, he could not attempt it. He remarked,—"I feel altogether a different man. It is a very strange thing that such a cure can be made without any medicine." At this date the treatment was discontinued, as the patient said he felt no further necessity for it.

Case 70A.—*Hyperæsthesia, associated with Small-pox.*

March 6, 1871.—Mrs. W., a young married lady, of fair complexion and considerable beauty, requested my advice. I found that she was suffering from small-pox, and that the eruption, the nature of which the patient had not recognised, had made its appearance three days previously. The whole body was covered with papules, which, however, were crowded together most thickly over the lower part of the trunk. The eruption in the face was so considerable that it was not possible to insert the top of the finger between the papules; and below the orbit on each side they were more or less confluent. There was considerable fever, very severe headache, intense irritation over the surface of the body, and the patient was extremely restless and excitable. The previous night she had been delirious.

On the 2nd of March the patient took a walk, and returned home shivering, and complaining generally of malaise—could eat

nothing, and went early to bed. The next morning she felt very sick, retched violently—though unable to vomit, and complained of very severe backache. On the following day, the 4th, there were superadded to these symptoms intense headache, and the first appearance of the eruption. The distress increased, and on Sunday, the 5th, the patient was excessively irritable and excited —could not be kept in bed, and towards evening became decidedly delirious; and on the following morning, as already mentioned, I saw her professionally for the first time. She was treated by means of the Spinal Ice-bag, which was applied differently at different times, according to the varying conditions of the patient's cerebral circulation.

The effect of the cold in subduing the itching of the papules was almost magical. If she felt irritation ever so intensely, and the ice were at that time applied, within five minutes afterwards the irritation ceased, and the patient was altogether soothed and calm. The effect, in fact, was so delightful to her that, as soon as the ice in the Spine bags had melted, she prayed that they might be immediately replenished. This as a general rule was done, and during the whole of six consecutive days, and the greater part of the corresponding nights, she lay on ice continuously. At the end of that time the energy of the disorder having been spent, and its incidental irritation having been proportionally lessened, the ice was applied less and less continuously, but was used daily during full five weeks altogether. Throughout her convalescence she found it so comforting and refreshing that she was unwilling to dispense with it.

Convalescence steadily proceeded without one untoward incident, and the disease which had inspired her with inexpressible dread lest it should permanently disfigure her, left no distinct trace of its presence. There were, indeed, for a time a few places in which, when the patient made any extra exertion, or expressed any strong mental emotion, hyperæmic or congestive spots appeared; but gradually these ceased to be observable, and finally the face seemed not to be marked at all, unless it were scrutinized very closely, when a few whitish spots very slightly pitted could be discovered on that part of the face where, when I first saw the patient, I observed the papules to be confluent.

The sedative influence exerted by the Spinal Ice-bag on the intensely itching papules was so remarkably powerful and decisive that my experience in this case alone compelled me to ask myself whether it is not probable that that influence may be used to retard their development, and actually to impede or arrest the march of the disease itself. A preparation of glycerine was in the first instance applied over the skin from time to time, and the

patient said it gave her momentary relief; but it was of no real avail in permanently lessening the irritation, and, as already mentioned, she would not rest during the first period of her illness unless the ice were being applied.

In connection with this case and the use of the Spinal Ice-bag, I may mention that during the early period of the patient's illness each of the three servants who were in the same house with her began to be troubled with a very pronounced "malaise," nausea, and vomiting, one of them being confined to her bed a whole day. I treated all three in the same manner, namely, by persistent application of ice along the spine. At the end of three days they were all fairly well again, and had no relapse.

CASE 70B.—*Hyperæsthesia, Delirium, and Sleeplessness, associated with Small-pox.*

During the convalescence of the patient whose case is numbered 70A, I was called in consultation concerning another case of small-pox. The patient, a literary gentleman, was far advanced in the disease when I at first saw him.

He was covered with papules, which were fully developed. He was violently delirious, and insisted upon walking incessantly about his room stark naked. His medical attendant had prescribed narcotics, which, however, had proved of no avail.

Having advised the discontinuance of drugs altogether, I applied a short Spinal Ice-bag along the lower half of the spine, and another across the occiput. In a few minutes the patient was fast asleep; I then advised that the ice should be continuously applied in like manner until the mental excitement should be thoroughly subdued, and then at intervals, gradually increasing in length. The patient was scarcely delirious at all after the first sleep produced by the ice, and during each succeeding night he slept several hours. The effect of the cold in subduing the excessive hyperæsthesia from which he suffered was not less remarkable than was that recorded in the case previously described.

The results of the Neuro-dynamic treatment of small-pox, which are exhibited in the foregoing cases, are so important that, on public grounds, I think it my duty to print the following letter from the patient whose case is numbered 70B:—

"DEAR DR. CHAPMAN,

"I have very great pleasure in bearing my testimony to the very satisfactory operation of the Spinal Ice-bag in mitigating the dangerous delirium, sleeplessness, and high fever

of small-pox. My own experience of the disease and of the remedy entitles me to speak.

"When you were called in, in March, 1871, to advise upon my case, I had been utterly exhausted by long-continued and violent delirium, based upon the most distressing and persistent delusions, and accompanied by restless impatience at confinement to bed, as well as by inability to obtain sleep. I had fruitlessly been sickened with opiates, and the alarming symptoms showed no signs of abatement when you were called in and prescribed the Ice-bag.

"I shall never forget the grateful and almost magical effect of the bag when first applied. It almost instantaneously produced a refreshing sleep, from which I woke with the delirium and the delusions gone, with a restful sense of repose, with no tendency to rave or to leave my bed, and with a general feeling of increased strength; subsequently the delirium slightly returned, but the Ice-bag in every instance produced sleep, and dispelled the delusions from which I suffered. During convalescence, whenever I felt weak or perceived my mind to be wandering, I called for the Ice-bag, always with the same beneficial result. I should add that the bag also acted with wonderful effect in cooling the temperature of the face, and in preventing the irritation from the pustules during their disappearance. If at any time I felt disposed to rub or scratch my face, I was able to combat the desire successfully by an application of the bag.

"You are at liberty to make any use you please of my testimony on this subject.

"I am, dear Dr. Chapman, yours very truly,

"E. D. J. Wilson."

Case 71.—*Severe Pain in the Dorso-lumbar Region; Chronic Cough; Headache.*

March 25th, 1871.—John H., aged forty-four, complained of severe pain in the dorso-lumbar region; he had suffered from it between three and four months: it was especially severe when he stooped at his work—that of a ladies' boot finisher. He had also a severe cough, and frequently a headache, which he thought was caused by its paroxysms. He always had a cough in the winter, but this year it had been "dreadful bad." I advised him to apply the upper cell of the Lumbar Ice-bag along the lumbar spines, until the ice should be melted, each night. ℞ Syrupi ferri iodidi, ℥j., bis die; Olei morrhuæ, ℥ij., bis die.

April 4th.—The pain in the back was almost wholly gone. He said,—"I feel a great deal better: I can now sit down to work a

few hours; I couldn't a fortnight ago because my head was so bad. If I stooped down I had giddiness." Appetite "wonderfully improved." Pulse 94. The cough was not improved after using the ice. I advised him to continue the same treatment as before.

May 23rd, 1871.—The pain in the back was quite gone, and, therefore, the treatment by means of the Spinal Ice-bag was discontinued.

CASE 72.—*Great Pain at the top of the Sacrum; Extreme Tenderness along the Dorso-lumbar Parts of the Spine; Sleeplessness; Vomiting.*

March 29th, 1871.—John B., aged thirty, complained of pain at the top of the sacrum. The pain was much increased by stooping, and was brought on seven days previously, when he strained himself by carrying an unusually heavy load: he said,—"The bag went over my head; it ricked me in the back, and I've been queer ever since. I can't sleep at all scarcely because of the pain." Since the accident he had vomited the greater part of each meal "a few minutes" after taking it. He felt worst when lying down, and vomited most in the mornings. The whole of the lower half of the spine was very tender—great pain being caused by pressure on it. I requested him to apply a twenty-four-inch Spinal Ice-bag along the whole spine, till the ice should be melted, three times a day.

April 8th, 1871.—He used the Spinal Ice-bag as ordered. At this date he had no pain whatever, and no sickness; he ate well, slept well, and in all respects felt quite well. The tenderness of the spine was completely gone. He said,—"I can stoop or do anything now, sir." Treatment discontinued.

CASE 73.—*Cutaneous Disease of the Right Side of the Neck and of both Hands, with Intense Hyperæsthesia; Great Tenderness along the whole of the Cervical Spines.*

April 24th, 1871.—Cecilia B., aged seventy, had a red eruption, slightly papulous, on the right side of the base of the neck, about twelve lines long by eight broad, which appeared about five weeks previously; it was extremely irritable, especially when she became warm. She had also a like patch, but larger, on the radial side of the back of the right hand, and a smaller one on the palm of the same hand. The latter was rough and desquamating. The ulnar

half of the palm, the base of the thenar eminence, and the whole of the anterior part of the wrist, and part of the dorsal surface on the radial side, were covered in like manner. These parts on the left hand appeared as if they were recovering from a burn; they were denuded of cuticle, were cracked, felt peculiarly tight, and were very red and glossy. She had not suffered pain in these parts—only intolerable "prickly itching," and a feeling of intense heat: she said,—"They are so hot—so burning hot." There was *great* tenderness of the whole of the cervical spines, pressure on the second caused most pain; and the structures on each side of the lower cervical spines were swollen and tender. Three months previously the patient cut her left wrist on the ulnar side, longitudinally; the wound was about two inches long, and was deep; it was made with a piece of a wine glass, which she broke while cleaning it. The wound healed in about a month: in about another month the disorder began near the wounded part with intense itching; it gradually spread, and three weeks ago appeared in the right hand. I requested the patient to apply ice along the whole cervical region ninety minutes three times a day.

May 1st.—The eruption on the neck was markedly lessened, and the irritation of the part had almost ceased. The patches on each hand had become very much smaller, and the irritation complained of was "wonderfully lessened." She had used ice only twice a day. She was requested to use it three times a day. I also prescribed an ounce of infusion of calumba to be taken twice a day, and an ointment of the acetate of lead to be applied to the hands twice a day.

May 9th.—The patch on the neck was all but gone; the hands were very much better—the redness had nearly disappeared; the dorsal surface of the left hand was quite well—that of the right hand nearly so. Treatment as before.

May 16th.—She had had no irritation whatever since I last saw her. The skin of the neck was well; but tenderness was evinced on pressure of the lower cervical vertebræ. The left hand looked well except that the skin, which was now pale, looked as if it had but recently, though completely, recovered from the effects of a burn. The dorsal surface of the right hand on the radial side was the least completely healed. I requested the ice to be continued as before, and prescribed ferri et quinæ cit., gr. v.; aquæ, ℥ss., bis die.

June 23rd.—The neck was quite well, and the patient felt no tenderness when considerable pressure was exerted on the cervical spine. The hands were quite well also, except a very slight roughness about the size of a shilling in the left palm. Treatment discontinued.

CASE 74.—*Headache, with distressing Heat at the Top of the Head; Pains in the Lower Extremities; Frequent Flushings, followed by general Coldness; Nausea and Vomiting; Insufficient Sleep; Coldness of the Feet.*

April 25th, 1871, Mrs. L., aged forty-eight, complained of "burning pain" at the top of her head, of pains in her lower limbs, of "burning-heats" which came over her, of sickness and sleeplessness. She had long been a frequent sufferer from ordinary headache, but the "burning-pain" at the top of the head, which she described as peculiarly distressing, she had suffered "almost daily" during about a month immediately before she came to me. The "burning-heats" began to distress her at frequent intervals about twelve months previously; about four months after they came on her catamenia ceased, and two months after their cessation her flushes or burning-heats, which had become very frequent, began to be followed by nausea, often also by vomiting, and afterwards by general coldness. These extremely distressing alternations of circulation and temperature recurred about every hour in the daytime: after experiencing the "burning-heat" all over her she felt sick, often vomited, became extremely cold, and suffered from severe aching of the lower extremities. She was troubled during the night in much the same way: "I keep awake half the night," she said, "with those burning heats, and after the heats are gone I get very cold." Her appetite was "indifferent;" her bowels "pretty regular;" her feet were "nearly always cold." She was treated by means of the Lumbar Ice-bag and, in the first instance, took ammonii chloridi, gr. viii., infusi calumbæ, ℥ss. ter die; pilulæ aloes cum myrrhâ, gr. v., omni nocte. The medicines were discontinued in the middle of May; but the ice was used until the beginning of September.

May 9th.—The pains in the limbs were "not near so great as formerly." The "burning-heats" now came over her only three or four times a day, and they went off more quickly than before. The nausea and vomiting had quite ceased. The feet were much warmer; and she slept "a great deal better." Appetite greatly improved.

September 5th.—The pains in the limbs, the burning-pain at the top of the head, the burning-heats which came over her, the sickness, nausea, and feeling of coldness, had all quite ceased. Her feet continued quite warm; she slept well, and in all respects felt well.

CASE 75.—*Violent Headache; Frequent Giddiness; Sleeplessness; Mental Disorder; Nausea; Frequent Micturition; Sudden Flushes and Profuse Perspiration; Habitual Coldness of the Feet.*

May 13th, 1871, I was consulted by Mr. N. P., aged forty-nine, whose principal complaint was overwhelmingly severe and persistent headache. The pain was chiefly at the top of the head, and was associated with a feeling of pressure in that part and at the back of the eyes, which felt as if they would be forced out. While the pain was very severe he felt inclined to sway backwards and forwards, not from any wish of his own, he said, but involuntarily: he said,—"I can't help it, and am rather more inclined to go backwards than forwards." He had never lost his consciousness, but had staggered, and had often felt giddy. His sleep was very insufficient and unrefreshing, and generally when he awoke he had headache. He was prone to despondency, which sometimes assumed the character of melancholia with suicidal tendencies, which became especially strong if he found himself near a river, a cliff, or any other precipice. He often suffered from nausea, and sometimes from vomiting. When his attacks were severe and prolonged he passed limpid urine very often—on many occasions not less than a dozen times a day. The top of his head felt abnormally hot; he said it was always excessively hot, and that for a considerable time past he had been obliged to bathe it with spirits and water to keep it cool. The crown of the head was becoming bald. During his severe attacks, whether by night or day, he became extremely red in the face, his eyes became bloodshot, and he felt, he said, just as if he were standing before a fire. Moreover, he was often troubled with general and sudden flushings, and then immediately afterwards he broke out into a profuse sweat "from the crown of the head to the soles of the feet." His feet were remarkably and habitually cold.

About twenty years before the patient consulted me he had had typhus fever, and since that time he had suffered from headache at frequent intervals. During his best times he generally had headache, on an average, two days out of six. Throughout the first seventeen years of the period in question the pain was chiefly in the forehead: only during the three years before he came to me the pain had been seated at the top of the head. His severe attacks were becoming increasingly frequent and prolonged: at the date when I first saw him he declared that the attack from which he was then suffering had lasted three weeks

uninterruptedly, and that, in fact, he was "seldom clear" in his head. His eyes were generally so blood-shot during his attacks that his children could always tell when he was suffering more than usual. He had long held a very responsible situation, but during a considerable time before he first consulted me he had been wholly incapacitated from discharging his business duties.

The Neuro-dynamic treatment of this patient, which involved the application of heat as well as cold to the spine, was continued uninterruptedly from the middle of May to the end of November, 1871, and during a part of this time was the only treatment adopted. In the course of the treatment, however, I prescribed at different periods in succession iodide of potassium, bromide of potassium, bromide of ammonium, chloride of ammonium, tincture of calumba, sulphate of beberia, and aperient pills. No appreciable help was derived from the three first of these medicines; I thought the chloride of ammonium was, perhaps, of slight use, but the sulphate of beberia proved, I believe, of real value as a co-operative agent in accomplishing the cure which was effected in this case.

I shall not trouble the reader with a detailed report of the progress of this patient, whom for a long time I saw weekly, but will merely state the result. He improved steadily, and by the end of October had become so well that at that date he resumed his business duties. The treatment was, however, continued another month, and meanwhile he was able to work from 8 a.m. to 8 p.m. without feeling any evil effects from doing so. In the middle of December—a fortnight after treatment had been wholly discontinued—he called upon me and said that his strength and appetite were good, that he was in excellent spirits, and that he was as well as ever he had been in his life, except that he was still liable to have a slight headache in the morning occasionally, and to flush when he was excited.

July 29th, 1872, I saw this patient again. He reported himself to be continuing well: his eyes were quite clear; his appetite was good; his bowels were regular; he slept fairly well; and he was gaining flesh. During the very hot days of the previous week—the thermometer being at 92° in the factory he superintended—he felt a little giddy; but, by applying ice as before, he quickly regained his usual health. For a long time previously he had taken no medicine, and only occasionally had he found it necessary to resort to the Spinal Ice-bag.

CASE 76.—*Neuralgia of both the Upper Extremities; Pain in the Temples, between the Shoulders, in the Lower Part of the Back, and in both Hips; Numbness and Swelling of the Hands; Fainting Fits; Impairment of Sight and Memory; Leucorrhœa.*

May 24th, 1871, Mrs. V., aged forty-nine, suffered from neuralgia of both her upper extremities. She was in pain the greater part of each day. The pain in the left limb was the worst. The pain generally began in the first phalanx of the middle finger of the left hand; but sometimes the fingers of the right hand were first affected. In either case the pain extended completely from the fingers to the shoulders. Both sides were often, but not always, attacked at the same time. The attacks began so suddenly, that if she had anything in her hand she was obliged to drop it unless it were taken from her; the veins of the limbs, and especially of the hands, rapidly swelled, and the hands themselves became red; the arms seemed to be immediately paralyzed. She said, "The pain comes on as a fearful numbness: if I had my choice I'd rather go through my labour pains than bear what I have to suffer of a night." She often sat up a considerable part of the night from fear of the pain coming on as soon as she became warm in bed, for then the paroxysms were most prone to recur—"all of a sudden." She also suffered from pain between the shoulders, and often in the temples.

The disease came on about eight years before she consulted me, when she had, she said, "a coldness" of her right elbow, and "couldn't get it warm, and seemed to lose the use of the arm." Pain followed the coldness and weakness, and recurred at increasingly frequent intervals. During the previous twelve months she had never passed a week without attacks. She said, "I always find them come on after I've been doing anything." She had been obliged to give up her ordinary domestic work, and for many months past has been unable to dress herself; she could scarcely walk a dozen yards. She said, "If I attempt to walk, the pain comes across the hollow of my back, right down to the lowest part of it, and in both hips dreadfully, and the pain between my shoulders—I can hardly bear it." When attempting to walk but a very short distance she was obliged to stand still several times. Between two and three years before I saw her she began to have "fainting-fits," always brought on by the pain in her hands, arms, back, and shoulders. Indeed, sometimes the pain seemed, she said, to be all over her. Any excitement, worry, or considerable physical exertion induced a fresh attack of pain,

which, becoming intense, was soon followed by faintness. She felt, she said, as if the use of her limbs were suddenly taken quite away. She became very cold during each fit. Generally while she remained cold, prostrate, and helpless, she knew what passed around her, but she could not speak; often she lost her consciousness more or less, sometimes completely. "Then, after I get better of the fit," she said, "I come over of a fearful flush." Since these fainting-fits began, they had recurred several times a week; sometimes she suffered from them two or three times a day. Both her memory and her visual power were much impaired. Pressure along the spine showed the whole of it to be extremely tender; but the region of the fourth and fifth cervical vertebræ was horribly so. Appetite feeble; bowels regular. Menstruation ceased eleven months previously. She had been troubled with leucorrhœa since her first child was born, sixteen years before she consulted me.

The treatment of this complicated case extended through several months: the Spinal Ice-bag was the chief agent relied upon, and, indeed, was the sole agent until July 7th, when I also prescribed cod-liver oil. Subsequently she took small doses of chloride of ammonium, and during the latter period of treatment citrate of iron and quinine. Warm baths were also used occasionally.

May 31st.—The pain had lessened considerably both in duration and intensity. On the third night of using the ice the pain was so much lessened that the patient slept four hours. She said, "I've not slept so for months, and my hands have not been drawn up: I can now hold anything." The veins were less distended, and the limbs were less swollen than before.

June 22nd.—She used the Spinal Ice-bag as directed pretty steadily until the 16th inst., and meanwhile continued quite free from pain each night, and slept nearly the whole of each night continuously. "Indeed," she said, "I can sleep at any time in the daytime now. I fancy the ice draws you to sleep; I don't know whether it is fancy." The pain in the daytime had recurred much less frequently, had been much less intense, and had continued a much shorter time than formerly. She had been many days without *pain;* but she thought the numbness was not lessened. There was still less "puffing-up"—as the patient called it—of the veins, and swelling of the hands. The pain between the scapulæ was much lessened; but that across the loins continued "very bad." On the 16th inst. she ceased using the Spinal Ice-bag because she was unable to get ice; on the 18th she became very ill, and "fainted away with pain;" on the 21st she fainted twice from the same cause, and lost her consciousness completely; on the 22nd she resumed the use of the ice.

June 29th.—She had become very much better: she had been

three days without any pain at all, and had neither fainted nor felt faint since the date of her previous report. She said, "I've been better altogether this last week than I've been for months."

July 7th.—She continued to improve. At this date she remarked, "My memory and my eyesight are better."

July 17th.—She said, "I get a full night's sleep generally now. I may wake sometimes, and even lie awake a couple of hours,—but not in pain, as I used to do." She had also passed many days without having any decided attack of pain in the daytime. What she continued to be troubled with was "more numbness than pain." In reply to my inquiry what evidence she could give me of improvement in her arms, she said, "Why, being able to use them. For many months before I saw you I could not dress myself; now I can do so easily, and can use my needle." She added, "When I used to go to bed and drop asleep, I woke up in agony; now I never do so." She reported also that her appetite was much improved.

July 26th.—She informed me that for some time previously she had rarely had any pain in the upper extremities; but that she still felt the numbness in her hands, and to some extent in her arms. She had gained greatly in general strength, and especially in her power of walking. At this date she could walk quite easily from her house to mine—a distance of upwards of a mile—without any pain at all. She had also acquired the habit of sleeping as soon as she went to bed and sleeping till morning. The leucorrhœa had been steadily lessening, and during the previous fortnight she had not been troubled with it at all.

August 9th.—She had been to Sheerness, and since she last called upon me had been without ice. She was not so well again, and ascribed her relapse to omission of the ice; she had pain and swelling in the hands again, and the pains had recurred in her elbows, "but not so violent as before." She still felt very well in herself. She promised to resume the use of the ice without delay.

Sept. 13th.—By my request she had six decayed double teeth extracted a few days prior to this date; she thought the numbness had been a little lessened since. She continued to have good nights.

Sept. 22nd.—She thought she had caught cold; she felt the Spinal Ice-bag cold, and her chest becoming uncomfortable, I advised her to suspend the use of the Ice-bag, and to take a warm bath at 98° F. during an hour every other day.

Oct. 4th.—At this date she had been without ice three weeks. The numbness in the hands had returned almost as bad as ever, and the pain was beginning to return. She was also sleeping less well again; but otherwise she felt well. She had had no return

of the leucorrhœa. I advised her to apply the top cell of the Spinal Ice-bag along the cervical spine till the ice should be melted, three times a day.

Oct. 25th.—She reported that she had continued the ice regularly as directed, and that she had remained quite free from pain, unless when she did heavy work—washing, for example. She could do ordinary house-work without any pain at all, and had, she thought, been able, except at the times mentioned above, to do so during the previous three months. She still felt the numbness, but it was markedly lessened; she had had no more fainting-fits, and continued quite free from leucorrhœa; she slept all night every night, and so soundly, too, that even the alarm of fire on the previous night quite near her (in Hare Court, Temple) did not awake her. She was, in fact, in all respects better than she had been for many years. I recommended her to continue the treatment previously prescribed.

Jan. 29th, 1872.—The patient followed my directions during a few days only after I last saw her, and then, continuing to feel remarkably well, left off the use of the Spinal Ice-bag, and had not since resumed it. Excepting during a few days at the end of the previous month, and again just before coming to me on this occasion, she had passed the previous three months without pain. In both instances the temporary recurrence of the pain was caused by the labour of washing. Otherwise, she had been astonishingly well: she said, "I hadn't even the numbness, or that dead feeling in the spine of my back," and no one of the other ailments from which she suffered when she first consulted me had returned. I advised her to apply ice again if the pain should recur, and prescribed, ferri et quinæ citratis, gr. v.; olei morrhuæ, ℥ij., bis die.

March 4th.—She had not found it necessary to use the ice again: she had not been troubled with pain, unless she brought it on by doing some especially hard work, and then it was comparatively slight. She looked thoroughly well, and said she felt so. Her complexion and expression were wonderfully improved. I advised her to continue the medicines last prescribed some time longer, and to re-apply the Spinal Ice-bag as before if the neuralgia should recur.

July 1st.—I saw this patient for the last time at this date: her condition and report were essentially the same as at the previous date. She could do all ordinary domestic work without suffering; only when she exerted herself violently did she experience any pain. In other respects she continued perfectly well. During the preceding half-year she had used ice very rarely; but if, on any occasion, after inducing the recurrence of pain for a short time by extra exertion, she re-applied the Spinal Ice-bag, she obtained speedy relief.

CASE 77.—*Severe Gouty Pain, with Swelling and Stiffness of the Right Knee and Foot, and Pain in the Left Foot.*

William S., aged forty-six, consulted me May 30, 1871, when he was suffering from a very severe attack of gout in the right knee and foot, and also, though less severely, in the left foot. The knee was greatly swollen, very red, acutely painful, and could not be bent at all. The right foot was also much swollen, and very painful; the left, though not appreciably swollen, was decidedly painful. I prescribed a simple aperient mixture, and the application of ice along the dorso-lumbar region, during an hour and a half, three times a day.

The effect of the treatment in lessening the pain was distinctly manifest during the first day; and in about thirty-six hours after the treatment began the patient could partially bend the affected knee. The pain and swelling steadily and simultaneously declined, and at the end of five days had wholly subsided; and, meanwhile, the knee-joint became perfectly flexible. The Spinal Ice-bag was used as prescribed during seven days; and then I prescribed ferri et quinæ, gr. v., ter die. The patient remarked,—"I cannot describe the suffering I was in before I put on the ice, which seemed to drive the pain away."

CASE 78.—*Severe Pain over the Chest, in the Shoulders and Four Extremities, with Rigidity of the latter, and other Symptoms of Disorder of the Spinal Cord.*

Mrs. E., aged twenty-nine, consulted me 30th May, 1871, when she presented the following symptoms:—Her arms and legs became "stiff" every morning, and generally continued so until the afternoon, when they became more or less relaxed. She said,—"If I get anything in my hands I don't feel as if I can hold it, and my hands become stiff." She suffered from a peculiar tightness about the chest; the feeling, she said, "seems to come on as if everything were strapped on me, and the pain goes up the left side of the neck, and I become quite stupid." She suffered great pain in the chest, shoulders, arms, and legs: she said it was most severe in the chest, shoulders, hands, and ankles, and that sometimes it affected her "in the stomach, and around the heart." When the pain came on severely she felt as if her mouth were drawn open, her face and eyes felt tight, she was troubled with lachrymation, and oppressed with drowsiness. The pupils were rather dilated; she suffered frequently from sickness; she passed

water about three times an hour during the day. Pulse 120; the hands were tremulous and jerky. About a month before I saw her, having gone to bed fairly well, she found on the following morning that she was unable to get up, owing to great weakness and pain in the shoulders, chest, and legs—the pains in the legs were of a darting character: such was the sense of pressure on the chest that on one occasion she had her clothes cut open because she thought they produced it. When the attacks came on, she broke out into a violent sweat every morning, and this symptom had continued—though in a less pronounced form. Three or four weeks before she was attacked as described, she felt pain along the spine—most severe between the scapulæ and extending to the sacrum. The pain, she said, "was not a starting pain, but a dreadful pressing pain, that came on first in my back as if the strings of my clothes were tied behind, and as if the knots were pressing in my back: it affected my breath,—it seemed as if I could not get my breath; my husband gave me brandy, but it made me worse; I tried rum and milk, but it seemed to make me a great deal worse. When I attempted to wash the steps with a flannel, I could not move my arms, and so was obliged to give it up." About three weeks before she consulted me her skin, especially over the chest, was very irritable, and in that region there were several "red flat spots." I directed the application of ice over the whole length of the spinal cord three times a day, each application to be continued until the ice should be melted. No medicine.

June 6th.—The pains along the middle of the back had much lessened, as also had the rigidity of the limbs, and she could hold things in her hands much better; she had no longer any feeling of tightness over the face; the tightness over her chest was greatly lessened, and the pain in the thoracic and abdominal parieties was also much less severe. Pain in the limbs was still considerable. She felt much stronger generally, and her sickness had almost ceased. Moreover, she was making water not more than six times a day. Pulse 100. She was directed to continue the ice as before, and to take aperient pills when her bowels were confined.

July 11th.—Pain in every part of the body had quite ceased; all sense of rigidity or stiffness had also subsided. The head still felt "thick" sometimes, but she had ceased to feel sleepy in the day time. She was making water only four or five times during the day—not at all at night. The tremors and jerks of the hands had also quite ceased. Perspiration normal. She was directed to apply the Spinal Ice-bag as before, but only twice a day, and still to keep her bowels open daily by means of aperient pills if necessary.

August 2nd.—The Spinal Ice-bag was used about half-a-dozen times after the date of the previous report. The patient declared herself completely relieved of all her troubles. Treatment discontinued.

CASE 79.—*Sciatica on both the right and left Side; Severe Pain in the Loins; Headache; Giddiness; Mental Heaviness and Depression; Habitual Constipation of the Bowels and Coldness of the Feet.*

June 26th, 1871, Louis C., aged thirty-four, was suffering from sciatica chiefly in the right leg, but often in the left. The pain began about three months previously in the left leg, especially along the anterior part of the thigh, but soon became most pronounced in the right. The pain was worst near the ischiatic tuberosity, and was also extremely severe in the calf on the peroneal side, and along the inside of the foot. The paroxysms were most severe each evening, so severe that the patient feared to move himself in any way, and often remained bent forward. Pressure on the ham in sitting down, or coughing, augmented the pain extremely. He was always in pain while awake, but only in the evenings, as a rule, did the severe paroxysms come on. Movements, however, brought them on at other times. He complained of great pains in the loins which he felt to be very feeble. Often he had the sensation of "pins and needles" on the peroneal side of the right leg. The patient also suffered from headache several times a week; the attacks were often of the nature of hemicrania, and were accompanied with giddiness, heaviness, and a longing for sleep. When he did sleep he slept too heavily, and was fatigued by it and depressed. He said, "il me semble toujours que j'ai envie de pleurer." He had a feeling as if his chest were forcibly compressed. Appetite good. Bowels open only every second or third day. Feet habitually cold.

The treatment in this case, during the first month, was exclusively by means of the Spinal Ice-bag.

July 31.—He had been ten days quite free from pain. His headache had ceased. His bowels were open daily without the use of aperient medicine. He reported himself "tout-à-fait bien." His feet had become quite warm. His loins were then so strong that he could walk a considerable distance without either pain or fatigue. He remarked, however, that he did not sleep very well. I advised him to continue the application of the Spinal Ice-bag, and to take Potassii bromidii, gr. x., aquæ camphoræ, ℥j., each night.

This patient returned to France and I did not see him again after the above date, but the lady who advised him to consult me has since informed me that when she afterwards heard from him he continued quite well.

CASE 80.—*Severe Brachial Neuralgia; Headache and Backache; Deficient Sleep; Smarting Pain in the Eyes; Cough with Copious Expectoration; Sickness; Leucorrhœa; Prolapsus Uteri; Unduly frequent Micturition; Coldness of the Feet; Great Tenderness of the whole Spine.*

Mrs. C. S. R., aged forty-five, complained, July 13, 1871, of constant pain from which she had suffered since the previous November in the thumb, thenar eminence, wrist, and along the arm up to the shoulder of the left side. It was most acute in the thumb, and was greatly increased by walking and by the supervention of menstruation. The pains also extended, but less severely, down the left leg, along the right arm, and into the right thumb. The left arm felt painfully heavy, it also felt numb, and was always much the most painful at night; she was constantly liable to severe pain in the back which was always reproduced by walking; she suffered from an almost constant and peculiar headache, a feeling, she said, as if her head would burst; had always been a bad sleeper, but her nights had become "much worse" at the time she consulted me. Her visual power had greatly declined during the preceding six months; she could just make out test-type 1½, she read 3 with difficulty, and 3½ with fair ease; she had smarting pains in the eyes, "as if," she said, "she had'nt had enough sleep. She had a cough with considerable expectoration which was especially copious in the mornings. Tongue thinly furred. Appetite "very bad;" she was frequently sick, the mere sight of eatables often produced nausea, and from the time she first began to menstruate she had always been sick at her periods. The bowels acted regularly. The catamenia recurred regularly once a month and continued a week each time. During the first two or three days of her periods she suffered great pain in the back, womb, and thighs, "in fact, all round," she said, as well as from sickness. Leucorrhœa she was always troubled with during the whole of each catamenial interval; she had a constant sense of bearing down of the womb; "when I walk," she said, "I feel as if it were all open—so peculiar, when it's worse my cough is very violent." She was obliged to rise each morning about four to urinate; and needed to pass water very often in the daytime, but sometimes could not when she

tried, and then was only enabled to do so by sitting over hot water. Her feet were habitually and excessively cold; in the winter they were never warm, and even in July, when I first saw her, she said—"They were very cold last night, and I was quite shivering." Pulse 78—soft and regular. The whole region of the spine was exquisitely tender.

The treatment in this case was exclusively by means of the Spinal Ice-bag and infusion of calumba, and was continued until Dec. 14, 1871, in fact, just six months. A striking improvement was effected even within the first seven days of treatment; she said, July 20th, "I've not brought so much pain with me, my head's better, lighter, and my feet are much warmer." She informed me at the same date that already she felt the pain in the right arm "very rarely," and only "very slightly;" that she bore the walk to my consulting-room better than she had done the previous week, and that the cough and expectoration had markedly lessened; she added, "*I find the ice very agreeable; I look for it, and would like to have it on longer each time.*" And again, July 27th, she said, "*I go to sleep with the ice on, it's astonishing how pleasant it is.*" At this date she reported her nights and appetite to be much improved.

August 3rd.—She reported her head to be so much better that it was "no longer like the same head;" that both her sleep and her appetite continued to improve; that her cough had almost subsided; that the leucorrhœa and bearing down of the womb had lessened, and that her feet had become continuously warm.

November 15th.—Every vestige of her neuralgia and of her headaches had completely disappeared; she felt neither the heaviness of the arms nor the numbness frequently complained of; she had no cough, no expectoration, scarcely any leucorrhœa, and no prolapsus uteri or bearing down feelings whatever; she was no longer obliged to urinate with undue frequency, and had quite ceased to rise early in the mornings in order to do so. The tongue was quite clean, and her appetite thoroughly good; she was sleeping full six hours each night; she had no smarting of the eyes; she could read test-type 2 fairly well without hesitation, and 2½ with perfect ease.

Dec. 14th.—Every symptom of which the patient had complained in July continued absent, and the treatment was left off.

Three months after all treatment had been discontinued I saw this patient again—viz., on March 12, 1872; she had had no relapse in respect to any of her symptoms; she was in excellent condition, and stated that she had not passed a winter for years so well as she had passed that of 1871-2.

CASE 81.—*Neuralgia of the Testicle; Headache; Eye-ache; Peculiar Influence of the Nervous System on the Bowels; Coldness of the Feet.*

Mr. ——, aged forty-four, married, consulted me, Aug. 1871, when he complained of pain in the left testicle occurring on an average about three times a week, and chiefly in the evening. The pain was increased by walking and "anything of an exhausting nature." He was also greatly troubled by a peculiarly distressing coldness of the glans penis: referring to the presence of this symptom during the preceding winter he said, "the constant chilliness of the penis was horrible." He believed his sexual power had declined; he had no desire for intercourse with his wife, and seemed, he said, "to be dried up." Nevertheless, he not unfrequently found the penis erect when he awoke in the morning. During the preceding six months he had been troubled with headache "once or twice a week." The eyes were prone to ache, and the left one was troubled with muscæ volitantes. During the preceding twelve months he had felt a little weakness of the right hand; being a musician he found that it trembled when he went before an audience and, as leader, used the baton. He was conscious of having become especially "nervous" during the preceding eighteen or twenty-four months, and was so troubled in this respect that whenever he was going to give a concert or to perform in public he felt a sort of apprehension affecting his bowels and causing him to have a markedly loose stool about five minutes before the performance began. Otherwise his bowels were prone to be rather constipated. He had been "getting more bilious" and felt "qualmy fits at times." He had been subject to coldness of the feet all his life, but latterly this symptom had become more pronounced. He perspired very freely. Pulse 80—regular. His habits were especially temperate in all things except work; in that he indulged immoderately. The treatment of him included the use of the Spinal Ice-bag, and of the following medicines in succession: Ferri et quinæ citras cum ammonii bromidio; acidum phosphoricum dilutum cum strychnia; Oleum morrhuæ.

Exactly a month after I first prescribed for him he reported to me that the pain in the testicle had quite left him, that the penis had become "perhaps a little warmer;" that he rarely had headache; that he thought his eyes somewhat better, and that he felt much less nervous—no longer worried about matters as formerly. He added, "I'm not so soon knocked up, and don't feel that tremendous sinking which I formerly did."

November 19th, 1871.—I received a letter from him in which he reported progress; the pain in the testicle had not returned; the sense of coldness of the glans penis, though still experienced, was decidedly lessened; he felt much less nervous; he was, "to a great extent, rid of that fear of an audience," and had quite ceased to be "troubled with diarrhœa just before a concert." I did not hear from this patient again.

Case 81a.—*Nephralgia.*

Françoise B., aged thirty-five, was suffering from very acute nephralgia when I was requested to see her, September 29th, 1871. She had severe pain in the loins, which spread over the left side of the abdomen, invaded the groin, and was especially acute along the inner side of the left thigh. The pain was excruciatingly intense, of a shooting character, and more or less paroxysmal. The patient was very excited and restless, had considerable fever, high pulse, acute headache, furred tongue, and was much troubled with nausea and vomiting.

This patient was treated exclusively by the Neuro-dynamic method—one Spinal Ice-bag being applied along the lower half of the spine, and another across the lumbar region, so that the two bags formed an inverted cross. The vomiting and nausea were thoroughly subdued, and the pain was greatly abated, before the close of the first day of treatment. On the second day the patient was almost wholly free from nephralgia, she was wholly free from headache, was quite calm, and her general condition was strikingly improved. On the third day she was altogether free from pain, and so well generally that she resumed her usual occupation.

Case 82.—*Facial Neuralgia.*

Mary Ann S., aged twenty-two, consulted me, Oct. 3, 1871, suffering from infra-orbital neuralgia, the chief focus of which was over the left malar bone. The pain came on in violent paroxysms most generally about five p.m., and lasted very severely between four and five hours. The disease began in the winter of 1870-71, and gradually increased in severity: during the three months before she consulted me the patient had had the pain "every day quite three weeks out of four." When describing her sufferings she said, "The pain begins all of a sudden; you know how toothache begins, this begins just like it." Before the pain was felt the area of pain became red: she said, "I can feel it

flush up before I feel the pain;" and during the paroxysms the part could not only be felt but could be *seen* to throb. For some time immediately before I was consulted the patient had also experienced a dull aching between the paroxysms; she said, "I feel it even while I sleep." There was a decayed molar tooth in the upper jaw of the affected side, but the patient refused to have it extracted. Pulse very feeble—126; appetite bad; bowels open daily; catamenia normal.

I prescribed the application of the 8-inch Spinal Water-bag containing water at 115° F. whenever the paroxysms threatened to recur, and at other times when any pain was felt.

The patient's brother called upon me some time afterwards, and informed me that the use of the heat as directed stopped the pain, and that she soon completely recovered.

CASE 83.—*Neuralgia of the Four Limbs; Distressing Sensation in the Throat; Headache; Pain along the Spine; Cramps; Faintness; Profuse Leucorrhœa; Excessive Coldness of the Feet.*

October 4th, 1871.—Mrs. A., aged thirty-four, eight months pregnant, applied to me at the Farringdon Dispensary when suffering from continuous aching of both forearms, with extension of the pain through the hands, and affecting the fingers, and of the thighs and knees: the pain was worst in the right side. She was also much troubled with pain along the spine, usually beginning between the shoulders and reaching down to the lumbar region: she had "a bad headache most days," had cramps in the calves of her legs, and often felt faint. She especially complained, too, of a peculiar and distressing sensation in the throat, just as if she had swallowed a "fish-bone": she was also troubled with nausea each day, and often in the night. She was generally very chilly, and felt as if cold water were trickling down her back: she had profuse leucorrhœa, and her feet were habitually very cold. Pulse 108.

The pain began in the lower extremities about the previous Christmas, and soon invaded the upper. They were much increased, and, when absent brought on immediately, by any fright, painful excitement, or hurry. The cramps in her calves had troubled her during each of her pregnancies. About three months before she applied to me she began to experience a distressing sensation in the throat, which she thought due to a fish-bone. She remembered taking some fish about that time; she then swallowed some bread, which she thought lodged there too; and

soon afterwards she took a piece of gristly meat. Ever since then the sensation had been increased, and was troubling her extremely and constantly. She suffered much from sickness and vomiting during the early months of her pregnancy—the nausea she still complained of being a remnant of that malady. She menstruated irregularly and with undue frequency (almost every fortnight) until she "quickened," and had "always suffered very much" from leucorrhœa.

This patient was treated exclusively by the Neuro-dynamic method: the decisive and rapid improvement which was effected in her is indicated by the following reports.

Oct. 10th.—The aching of the thighs and knees had quite ceased, and that of the upper extremities had nearly ceased. She said,—"I've never had the cramps since I've used the ice." The upper part of the spine was, she reported, much better, and, she added,—"My throat is ever so much better: it used to keep me awake for hours in the night—now it don't wake me at all." Her headaches and leucorrhœa were much lessened, and her sickness and faintness were "all but gone." Her appetite was "much better," and her feet were warm. She remarked that she found the ice very comfortable.

Oct. 24th.—She found herself still better in all respects, and her throat so comfortable that she was concerned to know whether she would be allowed to use the Spinal Ice-bag in the Lying-in Hospital, where she expected to be confined. She said she left off the ice during thirty-six hours, and became so bad again that she dreaded to be without it.

Nov. 7th.—All her troubles, except that of the distressing sensation in her throat, had ceased to recur. This was apt to recur after meals, but was relieved by means of the Spinal Ice-bag every time it was applied.

Jan. 2, 1872.—The patient had been "confined" in the Endel Street Hospital, and during the first sixteen days after confinement she continued quite free from all the disorders about which she first consulted me; but at the end of that time the chimney of the ward where she lay took fire. Her bed was quite near the fire-place, and she was very much frightened: all her pains in her back and limbs came back; she suffered much from her throat again; she complained of tingling in all her limbs, and over the chest and back, and said that where she had the tingling the skin became "goosey" and cold, and then that burning-heats and perspirations came on. The tinglings came on in fits during both day and night—worse at night. They recurred six or eight times during each night. She sweated while she tingled, the sweat falling off in drops. She said,—"I seem cold, and yet I seem hot." After the tingling subsided she grew very cold—the back

more so than any other part. The affection of the throat differed on this occasion from what it was in the first instance: instead of feeling, as before, that something was "laid across it," as she said, she experienced severe shooting and constant pains in it. They kept her awake many hours each night. Her bowels were obstinately constipated. She was again treated in the manner which had previously proved so effective, and all her symptoms soon yielded again completely. In the middle of March following she continued quite free from them, and the treatment was discontinued.

CASE 84.—*Headache; Ocular Neuralgia; Nausea; Leucorrhœa of Five Years' Duration; Deficient Catamenia; Frequent Flushings; Extreme Coldness of the Feet.*

October 18th, 1871.—Mrs. K. B., aged thirty, applied to me in consequence of suffering from very severe pain in her head and in her right eye. The pain was most acute at the back of the head; the pain in the eye generally came on simultaneously with the headache—in the morning—and was intensely severe. She suffered habitually from nausea, and from leucorrhœa, which began soon after her marriage, five years previously, and had continued ever since. Her catamenia was so slight that she might fairly be said to be suffering from amenorrhœa: from the time she first began to menstruate, when she was fourteen years old, she had never been obliged to wear a napkin. She was treated in the first instance by means of the Spinal Ice-bag alone.

October 31st.—The patient reported that her feet had become much warmer, and that the Spinal Ice-bag made her warm all over each time she put it on: she had felt neither sickness nor nausea; her flushings, which had stopped during the first week of treatment, recurred slightly at this date. I requested her to continue the use of the ice as before, and to take the following medicine:—Potassii bromidi, gr. v.; Potassii iodidi, gr. ij½.; Aquæ camphoræ, ℥ss., ter die.

November 7th.—The headaches had become less frequent; came on later in the day than formerly, and lasted a shorter time. Sickness had not returned; appetite improved; leucorrhœa lessened. She said,—"My feet have been warmer ever since I have had the ice." I advised it still to be continued, and prescribed—Ferri et quinæ cit., gr. iv., bis die.

Nov. 21st.—Had had headache only once; the flushings had quite ceased; nausea had not recurred.

Nov. 5th.—The catamenia recurred ten days previously, and were healthier and more copious than hitherto. The patient seemed to be much impressed with the action of the Spinal Ice-bag in increasing her warmth. At this date she said,—"About five minutes after I put the ice on I am warm all over." I now directed the Spinal Ice-bag to be applied along the lower two-thirds of the spine, forty-five minutes, twice a day, and prescribed—Potassii bromidii, ferri et quinæ citratis, āā gr. v., ter die.

January 2nd, 1872.—She said "my head has been beautiful; I have never had headache for a whole fortnight." I ordered the ice to be continued as before, and prescribed—Pilulæ aloes et ferri, gr. v., omne nocte; Ammonii chloridi, gr. viij., Infusi calumbæ, ℥ss., ter die.

April 4th.—The patient continued the use of the Spinal Ice-bag until this date, and took the medicines which I prescribed from time to time during the interval, but of which I kept no record. At this date she had been quite free from pain, both in the head and in the eye, during two months. Sickness had never returned; her feet were habitually warm; and the menstrual flow had considerably increased—it lasted three days, and she was obliged to wear napkins during the whole time; moreover, the discharge, which previously was not only scanty, but whitish, had become of a bright red colour. The leucorrhœa had completely ceased. As she was now quite well in all respects the treatment was discontinued.

CASE 85.—*Flying Pains in Various Parts of the Body; Painful Excitability of the Spinal Cord, with Great Tenderness along the Spine; Excessive Flatulence; Profuse Leucorrhœa.*

October 21st, 1871.—Mrs. M. J., complained to me at the Farringdon Dispensary of suffering almost continuously from pains, now in one part of the body, now in another, and of aching of the back. Her abdomen was largely and almost constantly swollen, causing her great distress, and especially embarrassing her breathing. She was also troubled with very copious leucorrhœa. I treated her by means of the Spinal Ice-bag exclusively.

Oct. 28th.—She reported herself much better in all respects, and especially that her leucorrhœa had already lessened.

Nov. 14th.—She said the Spinal Ice-bag had taken away her pains, that she was now very seldom troubled with wind, whereas before using the bag she used, she said, "to swell to such a size." The leucorrhœa had very "nearly ceased." She began to men-

struate Nov. 9th, the flow being more copious and continuing longer than on former occasions. This patient volunteered the following statement: "Before I used the ice my bosoms were falling away; now they've become quite round again. I believe that if I had had the ice years ago I should have had children." The patient wished to retain the bag which had been lent to her, and I never saw her again.

CASE 86.—*Severe Crampy Pains in the Abdomen; Backache; Distressing Tenderness of the whole Spine; Violent and Prolonged Diarrhœa, with Coldness over the whole Body; Leucorrhœa.*

Mrs P., aged thirty, applied to me Nov. 25th, 1871, when her chief trouble consisted of severe crampy pains in the abdomen, associated with diarrhœa. The pains generally came on in the night after she had been asleep about two hours, and then diarrhœa supervened; they often troubled also, however, in the daytime, and on the morning she came to consult me they were so intensely severe that she had to stand still several minutes in the street while on her way. She complained too of severe and almost constant backache; she suffered from leucorrhœa, and there was great tenderness of the whole spine. Her feet were very cold—"dreadfully cold, like stones," she said; and she was remarkably cold all over. In fact, her aspect was that of a patient in the first stage of cholera: her eyes were sunken, and her countenance was especially pinched and pallid.

She had been an epileptic since childhood. She began to suffer from violent diarrhœa about three months before she came to me, and the first onset of the disorder was preceded by severe crampy pains in the abdomen during about a fortnight. Throughout the whole three months since the diarrhœa came on it had never left her a week, and rarely a day. During the first part of that period the bowels were moved "fully ten times a day;" but the frequency of action gradually lessened, and when she first consulted me they were moved in the day-time only after she had taken food or drink, the effect of which made her almost afraid to take anything, "because it brought it on." At night the disorder still continued to manifest itself with remarkable regularity: it came on after the patient had been in bed about two hours, during which she generally slept—though not soundly, and as a rule was preceded and accompanied by the pains already mentioned. I prescribed the application of the Spinal Ice-bag, from thirty to sixty minutes, twice a day—the

precise length of time it should be applied to be determined by her tolerance of it.

Dec. 2nd.—The Spinal Ice-bag, she said, startled her at first; but by the time she had had it on twenty minutes it seemed to warm her all over. Her feet had become warmer than they had been for several months. Since November 26th the symptoms had gradually abated, and, on the night of the 29th, she experienced quite a change: she passed the night without diarrhœa, and the pain had almost subsided. Last night she had to get up but once, and the pain was "very trifling." She slept much better. "In fact, these nights," she said, "I've gone to sleep with the ice on." Her appetite had greatly improved, and her increased warmth continued.

Dec. 23rd.—Since last report she had had much trouble, caused by the illness and death of her child, and had been able to use ice at night only. She reported that she continued warm all over; that she had no pain at all since the 19th; that the diarrhœa was almost wholly stopped; and that neither food nor drink was any longer able to bring on the disorder. She had had scarcely any pain in the hollow of the back, and during the previous fortnight she had had no leucorrhœa at all.

Dec. 29th.—She reported herself completely recovered from the maladies which had troubled her: all pain, diarrhœa, and leucorrhœa had completely ceased; she continued warm; and her general health and strength had so increased that she said,—"I don't feel like the same woman I used to be." Treatment discontinued.

CASE 87.—*Enteralgia; Loss of Appetite; Indigestion; Nausea; Watery Eructations; Vomiting; Obstinate Constipation; General Chilliness.*

Mr. G. D., aged thirty-seven, a plumber, applied to me at the Farringdon Dispensary, November 29th, 1871, when he was suffering from very severe enteric neuralgia. He described the pain as being deep-seated in the bowels, dreadfully intense across the centre of the abdomen, and as ascending sometimes along each side of the chest. It often lasted, with a few short intervals of respite, throughout the whole day. His appetite and digestive power were much impaired; he felt nausea habitually; was much troubled with watery eructations, and vomited frequently. Sometimes he ejected extraordinarily large quantities of bile. His bowels were, and had long been, obstinately constipated. He complained too of an habitual feeling of general chilliness. The severe pain began about a year before he came to me, and had

gradually increased in intensity and frequency of recurrence. He had been working as a plumber from the time he was fifteen years old, and had had lead colic from twelve to eighteen times. His health had been gradually failing during the two or three years before I saw him. During that time he had experienced considerable pecuniary losses which had pressed upon him and made him worse. He had been disabled from work during ten weeks immediately before he came to the Dispensary. Previous to the onset of the enteralgia he had violent cramps in the legs—chiefly in the calves. I treated him by means of the Spinal Ice-bag. I also prescribed aperient pills to be taken occasionally, and an ounce of infusion of calumba, to be taken twice a day.

Dec. 2nd.—The patient reported himself better: the attacks began at a later hour in the morning than before, and were less severe each time they recurred. His appetite had already improved, and he felt himself not only better bodily, but in better spirits.

Dec. 5th.—He passed the night of Dec. 2nd, after using the Spinal Ice-bag, without pain: he went to bed at nine p.m., and slept till five a.m., when he awoke without pain. Since then it had not recurred.

Dec. 9th.—He had had no return of the pain after it subsided a week previously; his appetite was thoroughly good; he was no longer troubled with indigestion, watery eructations, or vomiting; his bowels had become open daily, so that he had no need of the aperient pills; he felt much warmer, and, in fact, well and comfortable generally. Feeling quite able to resume work, and having the offer of the management of a business in the country, he accepted it, and I did not see him again.

CASE 88.—*Gastralgia, Vomiting, and Habitual Constipation.*

Mr. E. W., aged fifty-six, consulted me Dec. 5th, 1871, on account of severe and long-continued pain in the stomach. The pain was not concentrated at any one point, but was diffused over the epigastric region, and was not increased by pressure over any part of that region. The pain was dull, heavy, gnawing, and deep-seated. It usually came on in a slight degree between breakfast and dinner (he dined at one p.m.); between dinner and tea it recurred or increased; if it had not previously subsided it increased greatly, and persisted until he vomited, when he was immediately and, for the time, completely relieved. He generally vomited about five p.m. He first threw up about a teacupful of "perfectly clear water," and then a considerable quantity of white chyle-like fluid, of about the consistence of an egg beaten

up. He did not remember ever to have vomited anything that he could distinguish as food which he had taken. The ejected matter always appeared to have undergone the digestive process. After he had vomited he was, as a rule, free from pain till the following day ; but sometimes it recurred in the night unaccompanied with vomiting. He was also troubled with obstinate constipation, from which he had suffered many years. In other respects his health was good ; he looked ruddy and strong ; and, when untroubled by gastralgia, he worked from morning till night, discharging the duties of a responsible office in a large London business.

During his boyhood he was peculiarly liable to vomit, and during his apprenticeship he was often obliged to go home in consequence of suffering from persistent sickness. After arriving at manhood he got completely rid of his trouble during upwards of twenty years. It recurred in April, 1863, in a very violent form, and continued throughout May and June, during which he was incapacitated from attending to business. The attack on this occasion began with a "fainting-fit," and was accompanied by the loss of "a great deal of blood" from the bowels during seven or eight days. The next attack began in March, 1867, and lasted two months : his motions on this occasion were black, owing to the admixture of blood. Having recovered from this attack, he continued free from his malady during about three years. He had an attack in 1870, another in June, 1871, and another October 6th, 1871, and from that date until I first saw him, two months afterwards, he had rarely had a day of relief from suffering in the manner he described when he applied to me. He found mental excitement or "business worry" conduced to bring on the pain.

My treatment of him was by means of the Spinal Ice-bag, and in the first instance I also prescribed as follows :—℞ Potassii bromidii, ℥iss. ; potassæ bicarbonatis, ℥j. ; tincture calumbæ, aquæ distillatæ ā ā ℥iss. ; capiat, ℥ij., ex aquâ, ter die.

Dec. 17th, 5 p.m.—He reported that he found the Spinal Ice-bag very comfortable ; that during the 11th and 12th he was quite well ; that during the 13th and 14th he had some pain, though not severe, and without vomiting, and that from that time he had continued quite well.

Jan. 1st, 1872.—The patient called upon me and stated that until the previous day he had continued free from both pain and sickness, and that his general health had been excellent. During the previous fortnight he did not use ice at all. On Dec. 31st he partook of roast beef and plum pudding—a small piece of the latter. Violent sickness afterwards recurred. *The vomited matter was unlike that which he had formerly been in the habit of throw-*

ing up, but resembled rather the ordinary ejecta from the stomach, mixed with a considerable amount of mucus. He was sick this morning in the same way. I requested him to resume the treatment previously prescribed.

January 28th.—The patient reported that he had continued the use of the ice as directed during the whole of the preceding month, that from the time of resuming its use the sickness steadily declined, and that by the end of the first week it had completely ceased again. *During the whole of that week the sickness was accompanied by no pain whatever—an experience quite new to the patient.* He had had no pain since; he ate meat and various kinds of ordinary food without experiencing any discomfort, and said he never felt better in his life. He was particularly emphatic in his praise, not merely of the great efficacy of the Spinal Ice-bag, but of the remarkable comfort and agreeable sensations which it induced. He said that at first he was terrified by the idea of using it; but that he had come to look forward to it with pleasure, and generally that he fell into a sound sleep while lying upon it on the sofa.

I have seen this patient many times since the last date mentioned, and up to the time I write (September 17th, 1872) he has continued perfectly well.

CASE 89.—*Hypogastric Neuralgia of Several Years' Duration; Violent Headache; Coldness of the Feet.*

Elisabeth F., aged fifteen, who was suffering from severe and frequently recurring pain in the hypogastric region, and very often from violent headache, was brought to me by her mother Dec. 6th, 1871. The hypogastric pain was experienced almost every day, and was so severe that sometimes when walking home from her work, instead of being a quarter of an hour, she was an hour on the way—often holding on to the railings lest she should fall. The pain was most prone to come on after tea. Eating or drinking too freely would induce it, so also would mental emotion: "if," her mother said, "she's too lively within herself it 'ill come on." Ordinarily, an attack lasted from twenty to thirty minutes. Almost from her birth she had been troubled with this pain. "When she was young," said her mother, "I was forced to strip her, and lay her before the fire, and apply hot flannels." When eleven years old she was an in-patient of the Great Ormond Street Hospital on account of the pain in question. No organic cause of the pain was discoverable, and I concluded that it was what is ordinarily called "neuralgic." The patient's bowels were

regular; she had not begun to menstruate; her feet were habitually cold. I treated her by means of the Spinal Ice-bag, applied in the dorso-lumbar region. The result is indicated in the successive reports which follow.

Dec. 12th.—She had only felt the hypogastric pain twice since the Spinal Ice-bag was first applied, and then it was *much* less severe than before. Her headache was also somewhat lessened.

Dec. 19th.—Had had no hypogastric pain and no headache whatever since the date of the previous report.

Jan. 2, 1872.—Having to go to business at an early hour in the morning, and finding herself free from pain, she had, during the previous fortnight, applied the Spinal Ice-bag only half the time I had prescribed: the hypogastric pain had recurred, however, only once, and then much more slightly than formerly; but she had had headache several times. She was requested to use the Ice-bag as at first prescribed.

Jan. 30th.—Had *slight* hypogastric pain during about thirty minutes Jan. 27th: this was the only time she had felt it since the date of the previous report. She said,—"My head is ever so much better." Her feet had become quite warm.

Feb. 20th.—Had had no return of pain of any kind.

March 27th.—Had continued absolutely free from headache, and had had the "old pain" only once since the previous date. The bowels continued regular, appetite good, feet warm, and she slept well. I requested the use of the Spinal Ice-bag to be continued, and prescribed—Pilulæ aloes et ferri, gr. v., omni nocte.

April 23rd.—Had only had the pain once, and then very slightly—"it soon," she said, "went away." Replying to my inquiry respecting her head, she said,—"Oh, I never hardly have a headache now." She looked extremely well.

May 28th.—Had had neither pain in the head nor pain in the hypogastrum since previous visit. She said she felt very much stronger than formerly, and she looked thoroughly robust and well.

I saw the patient again in July, when she still continued free from pain. I have not seen her since. An interesting feature in her case was her striking increase of beauty during her treatment. A like result is, however, often observable in cases submitted to the Neuro-dynamic treatment: it is especially observable in those cases in which either pain or slight tonic spasm of the facial muscles, such as obtains in many epileptoid cases, is a characteristic symptom.

CASE 90.—*Violent Crampy Pains in the Abdomen; Diarrhœa; Headache; Spine-ache; Faintness; General Coldness.*

Mrs. J., aged forty-nine, complained at the Farringdon Dispensary December 13th, 1871, of crampy pains in the abdomen, which were worst when she was in bed. They usually came on about midnight, after she had been in bed two hours, and which by their violence bent her double. They were soon followed each night by diarrhœa, which troubled her ordinarily about six times a night, sometimes even eight times. After she rose in the morning the bowels were usually moved about three times. During the day the disorder generally ceased, but recurred in the evening, in the course of which her bowels were moved about twice as a rule. The pain was slighter during the day, but did not wholly cease: she suffered also from headache and from general coldness,—the cheeks and extremities were markedly cold, the arms being clammy. The lower part of her spine, since she suffered from diarrhœa, "ached so," she said; she felt faint, but had never actually fainted. Her diarrhœa came on suddenly as she was carrying a heavy tray to the top floor of a lofty house about a month ago, and had continued ever since. She had been treated at the Gray's Inn Hospital during a fortnight, and subsequently at the Farringdon Dispensary, where I prescribed for her the ordinary diarrhœa mixture supplied by the Dispensary, and afterwards sulphuric acid in full doses, each of which contained half a grain of quinine. Her pulse was remarkably feeble—84; menstruation ceased five years previously. There was extreme tenderness on pressure along the spine between the scapulæ, and from about the eighth dorsal vertebra down to the sacrum. Tongue clean; appetite "middling." She was directed to apply ice along the whole spine 120 minutes three times a day.

December 19th.—The pains were quite abolished; the motions had become much more solid; she rose twice the previous night, once the night before, and the night before that not at all; no motions at all in the day-time since using the ice, which, she said, "I fancy draws me to sleep." Whereas her sleep was formerly considerably broken, she now slept quite soundly, and didn't wake till nearly morning; her appetite was better; she stooped with pain no longer; her forehead, cheeks, and extremities had become quite warm; all clamminess was gone; her feet, formerly "like stones," felt now "nice;" all feeling of faintness was also gone; she had no aching whatever of the spine; pulse 90.

January 4th.—She used the ice twice only after last visit. From that time the bowels had acted quite regularly—once a day only,

and not at all during the night; she had remained quite free from pain; had continued warm, feet included; no faintness; had been to work, which she had not been before, having "no strength in her;" her headache had quite ceased; the tenderness of her spine was strikingly lessened; pulse 88; skin warm. She felt altogether well, and the treatment was finally discontinued.

CASE 91.—*Facial Neuralgia; Neuralgia of the Four Limbs; Infra-mammary Pain; Spine-ache; Impairment of Sight; Tenderness of the Scalp; Feeble Appetite; Constipated Bowels; Leucorrhœa; Coldness of the Feet; Excessive Tenderness along the Spine.*

Louisa N., aged twenty-three, married, came to the Farringdon Dispensary January 24th, 1872, when suffering from severe and prolonged neuralgia in various parts of the body, her face and head being especially painful. The facial neuralgia was chiefly on the right side, though latterly also affecting the left, and extended over the face and temple. The pain, which was most continuous and most acute just outside the outer angle of the right eye, was of a shooting, darting, and throbbing character. On one occasion its severity had caused her to lose her consciousness. She was sometimes, though rarely, free from *severe* pain during a whole day; was often free during a few hours, but had always *some* pain, though it might be so subdued that she almost forgot it. She had severe attacks on an average four days out of six, and when the paroxysm came on it lasted until she fell asleep at night. During its continuance the eyes were full of tears—the right especially so. After the subsidence of an attack the scalp was so fearfully tender, that she could not bear it to be touched; it was, however, always tender more or less. After each attack the right eye ached severely.

Of the neuralgia of the limbs, that of the right arm and elbow was especially severe—the left arm was only occasionally affected. The pain in the lower extremities recurred every day, and attacked chiefly the front of the thighs and also the calves. Often when she walked she felt as if she would fall. Her vision had become much impaired, that of the right eye most so; she could not read pica type with either eye; she slept fairly well when free from pain, but heavily; appetite feeble; bowels very constipated—three or four days usually passing without action; she had had leucorrhœa several years, also extreme coldness of the feet.

The trigeminal neuralgia had afflicted her between seven and eight years, the spinal pain about seven or eight months, and the pain in the left side about four months. She had been a patient

at the Surrey Dispensary, at Guy's and at St. Bartholomew's Hospitals, and had been treated by a general practitioner, who told her she had "a worm on the brain"!

My treatment in this case by the Neuro-dynamic method involved the use of both heat and cold, the application of which was modified in accordance with the changes occurring in the symptoms of the patient. At the end of a week the patient reported a decidedly increased warmth of the feet, a lessening of the leucorrhœa, and an improved action of the bowels.

February 7th.—The patient reported that the pain beneath her breast had left her, and that during the previous four days she had had no pains in her limbs. The bowels having become less active again, I prescribed aperient pills.

February 21st.—The patient stated that the pain had shifted from the angle of the eye to the side and top of the head; that the paroxysms had become very much less severe—only one severe one having occurred within the previous fortnight. Lachrymation of both eyes had quite ceased; the pain between the shoulders had much lessened, and that below the left breast had not returned. The bowels had again become more regular; the vision had perceptibly improved. She added,—"I have been able to do a little work this week." On this occasion I prescribed Ferri et quinæ citratis, gr. iij., ter die, the pills being used, if needful, as before.

March 6th.—The patient informed me that the pain at the angle of the eye had only recurred at times, and then very slightly; that the pain at the side and top of the head had been absent for days together; that when it did recur, it also was slight; that she had had no severe attack since last visit; that she had been quite without pain in the arms and legs for a full week; and that neither the pain between the shoulders nor that below the left breast had returned. The bowels had become quite regular, the feet quite warm again, she had scarcely any leucorrhœa, and her vision had so much improved that she could read test-type No. 3 quite distinctly—even with the right eye.

March 20th.—She said,—"Until Monday," the 18th, "I've kept wonderfully well—more so than I've been for years." The wind then changed to the North, and after that "the pains came very sharp, but not so continual," and her head felt heavy. Her bowels continued regular, without the aid of aperients, and her feet continued warm. The tonic was omitted, the Neuro-dynamic treatment being continued.

April 14th.—During the eighteen days preceding this date she was free from all pain whatever. It was then quite eight years since she had had a like experience. Her bowels continued

regular, and the leucorrhœa had become extremely slight. I prescribed,—Ammonii bromidii, gr. v., ter die, and the spinal application as before.

May 22nd.—Since the previous date she had had some pains occasionally, but when present they were less severe, and of shorter duration than formerly, and during the last ten days she had again been free from pain altogether. Her leucorrhœa had ceased; her bowels continued regular; and her feet, she said, were "always warm."

At this date her husband entered into a business engagement at Manchester, and, as she left London with him, I never saw her again.

CASE 92.—*Nephralgia; Acute Nephritis; Dropsy; Nausea and Vomiting; Constipation of the Bowels; Headache and Melancholy.*

Julia K., aged thirty, married, consulted me February 21st, 1872, when she complained of having suffered during the previous three weeks from headache, great pain across the loins, accompanied by a feeling of great heat, and from nausea and vomiting. The scalp, face, hypogastric region, and the legs and feet were swollen—the latter being greatly so, and also œdematous. The bowels were constipated—moved only once in two or three days. The urine was loaded with albumen. She slept badly, and was depressed and melancholy. The patient had, on several occasions during some weeks, walked in her sleep about four months previously. She had scarlet fever when twelve years old. I prescribed the application, at least three times a day, of two Lumbar Ice-bags,—one of them to be placed across the loins, and the other along the spine, immediately above it—and the following medicine:—℞ Pulveris jalapæ compositi, ℈j., cras mane; ℞ Misturæ ammoniæ acetatis, ℥j., quartis horis.

February 26th.—Used ice three successive days as ordered—three times the first day, and twice on the second and third days. She felt that the applications would have been more agreeable if the cold had been more intense. From the time the ice was first applied the pain across the loins gradually lessened, and yesterday had wholly ceased; the legs and feet were very much less swollen and œdematous; she had become quite free from headache and from sickness; her bowels had become open daily; she slept very much better, and felt in much better spirits; the amount of albumen in the urine was lessened in a striking degree. I advised her to continue the use of the ice as before, to take a Turkish bath every other day, and to take no medicine.

March 4th.—She reported that she had had no return of the pain in the loins, except when she exerted herself, and then but slightly; that she had had no headache at all, and that she felt her brain light and clear. The dropsy had completely disappeared both from the abdomen and extremities. She thought, however, that she was becoming both thinner and weaker, and she complained of a "feeling of oppression" between her shoulders. The amount of albumen in the urine had now become extremely slight. I advised her to continue the ice and the Turkish baths as before, and to take Olei morrhuæ, ℥ij., bis die; also Ferri et quinæ citratis, gr. v., bis die.

March 11th.—Had had only one Turkish bath since last visit. The amount of albumen in the urine was again lessened. I requested the same treatment to be continued unremittingly.

March 18th.—Had had no pain whatever since last visit, and was in excellent spirits; felt decidedly stronger; her bowels had become very regular; there was no perceptible swelling anywhere, and the urine did not contain a trace of albumen. She reported, however, that she did not sleep very well at night. I requested the treatment to be continued as before.

April 2nd.—The pain in the loins had wholly ceased; there was no trace of albumen in the urine; and her appetite was very much improved. She complained, however, of pain between the scapulæ, which she thought had been caused by fright the previous week, when her son fell and cut his head. I requested the medicines last prescribed to be continued, and the application of the Spinal Ice-bag along the whole spine during half an hour twice a day.

April 15th.—The patient reported herself quite free from pain, and quite well in every respect. The urine was again found quite free from albumen. Treatment discontinued.

I have seen this patient several times since, and she remained quite well.

Case 93.—*Gastralgia; Vomiting; Severe Cough; Loss of Appetite; Emaciation.*

Phillip F., aged seven, was brought to me at the Farringdon Dispensary 22nd February, 1872, by his mother, who said he suffered every day from a severe pain in his stomach. The pain was especially violent in the morning and evening, and often caused him to cry aloud. It lasted, when most severe, from 60 to 120 minutes. It was generally followed, and seemingly terminated, by vomiting, which continued from ten to fifteen

minutes. The ejecta consisted of "a sort of thick phlegm." He was also troubled with "a very bad cough indeed," which was much the most persistent and distressing during the night: it was not accompanied by expectoration; and neither percussion nor auscultation yielded evidence of pulmonary disease. His appetite was extremely feeble; he was notably emaciated, and looked old for his age; his countenance was pinched, and presented an unmistakable aspect of suffering and exhaustion. He began to suffer in the manner described, without any assignable cause, about five months previously, and had continued to do so until I saw him. He was treated solely by means of the Spinal Ice-bag.

March 5th.—His mother reported that since the first day of treatment the pain and vomiting had ceased entirely; that the cough was already much lessened; and that his appetite had improved.

March 19th.—Neither pain nor sickness had recurred. His appetite had greatly improved: he asked for food, his mother said, several times a day.

April 2nd.—Had had no pain whatever, and, his mother said, "has continued quite free from sickness, except when his father has beaten him (!): then he has sometimes become sick." His cough had quite ceased. He slept well, and his appetite had continued good.

April 30th.—Had remained quite free from pain and sickness, but had coughed a little during the preceding week. The use of the Spinal Ice-bag was continued, and he was ordered to take Ol. morrhuæ, ℥j.; vini ferri, ℥j., bis die.

June 14th.—Had passed several weeks without experiencing pain, cough, or sickness, and was dismissed from the Dispensary quite well.

Case 94.—*Brachial Neuralgia; Hyperæsthesia, accompanying a Lichenous Eruption; Bronchial Catarrh.*

March 9th, 1872.—I was consulted by J. C., male, aged fifty-one, who, after being troubled for some weeks with bronchial catarrh, and a lichenous eruption, which extended over the whole of the front of the chest, and which was intensely irritable, began, in the latter part of February, 1871, to suffer from neuralgia located in the left shoulder and arm. The pain, which was of a continuously gnawing kind, rarely extended below the elbow, but sometimes it reached to the fingers. It was much the most severe in the night, and when the patient lay on his left side it

seemed to increase : it was appreciably augmented by distressing emotion. During the last week of February and the first of March the pain recurred every night. The general health was fairly good ; but the patient had occasional, though slight, attacks of gout. I advised him to take a Turkish bath weekly, and to apply ice along the whole spine during two hours each evening. He took a bath in the evening of the day he consulted me : though the bath seemed to benefit him generally, it augmented the irritation of the eruption of the chest so intensely that it became, he said, almost intolerable. Passing the hand over it increased it in a striking degree. In this condition he went to bed, and applied the Spinal Ice-bag as directed by lying upon it. He declared that almost immediately—within two or three minutes—all irritation was absolutely gone, and that he could pass his hand freely over the whole of the front of the chest without producing any unpleasant sensation whatever—in fact, without producing any sensation different from that caused by passing the hand over the surface of any other part of his body. The irritation did not recur, and by the 16th of March had disappeared.

The bronchial mucus, which for some time previously had been excessively copious, and had caused frequent coughing in order to expectorate it, rapidly lessened in quantity, and at the end of the week of treatment had ceased to be troublesome.

The neuralgia was not felt at all during the night of the 9th, and troubled the patient but very slightly afterwards at any time, until the 16th, when he experienced a great vexation, which quickly brought on the pain again, to be again subdued, however, by a fresh application of ice.

Case 95.—*Gastralgia, with Prolonged Vomiting ; Headache ; Coldness of the Feet.*

R. B., male, aged twenty-six, came to the Farringdon Dispensary March 13, 1872, and complained of frequently recurring attacks of severe, crampy pains in the abdomen. The pains lasted from four to twelve hours—most frequently from six to eight hours. They both came on and subsided gradually. The pains were usually accompanied with vomiting, which, with slight intervals of relief, lasted from two to four hours. On the occasion of his last attack the vomiting continued three hours. On one occasion he was confined to bed four days by the length and severity of an attack. If he took no aperient medicine his bowels were opened, on an average, about once in three days, and his attacks seemed prone to occur after the bowels had been confined about three days, but they

also sometimes occurred soon after the bowels had acted. Sometimes he had only a day's freedom from suffering; but generally several days, and not infrequently a week. He also suffered from severe headache once or twice a week, and habitually from extreme coldness of the feet.

He was quite well until October, 1869, when he had an accident with a chisel, by which the left thenar eminence was deeply stabbed: the wound healed rapidly. About two months afterwards, when waking in the mornings, he experienced violent "bilious" headaches, after which he vomited what he had eaten the day before. These attacks, which came on first in February, 1870, were as a rule weekly, and generally occurred on Sunday. Wondering whether drinking a little beer on Saturday night caused them, he left off the beer, but they came just the same. Then he became troubled with a "nervousness—a violent beating of the heart, and noises in the head;" the attacks of this kind were sudden in their onset, and lasted only a few minutes. On account of them he was treated at University College Hospital during three months, by Dr. Bastian, with temporary benefit. Finally, the agonising enteralgia and vomiting, for the relief of which he applied at the Farringdon Dispensary, gradually supervened: the intervening stage of the change being backache, from which he suffered severely, and constipation, which gradually became established. He had had several attacks of hæmoptysis, which began about the time the hand was wounded, and continued until May, 1871. He applied at the Dispensary last spring on account of this affection: I treated him by means of sulphate of beberia, and the hæmoptysis had not recurred since. He was, I believe, so alarmed by finding himself spitting blood that he was led to mention this symptom only when he first consulted me.

When he applied to me concerning the troubles of which he complained March 13th, 1872, I prescribed Olei morrhuæ, ℥ij., bis die, and the application of the Spinal Ice-bag. Thirteen days afterwards he informed me that since the beginning of the treatment he had not had one attack of enteric pain; that he had had headache less frequently, and that, though the fæces continued hard, his bowels had become open daily. He said he was much surprised to find that the ice was very agreeable.

April 13th.—He reported that he had had one attack of vomiting, but that he had had no recurrence whatever of the pain.

April 23rd.—He was still without any return of pain, and had not vomited again. About a fortnight previously he was unable to use the ice more than once a day, and his bowels became constipated again; after he resumed the use of the ice as first pre-

scribed the action of his bowels again became normal. His appearance was wonderfully improved.

May 7th.—He continued free from enteralgia, vomiting, and headache; but having a slight cold in the head he had left off the Spinal Ice-bag during the previous four or five days, and, he said, felt the need of it. I asked him what he meant by saying he felt the need of it: he replied,—"Why, sir, I feel that I like it—I feel that it braces me up."

This patient, whom I last saw in December, 1872, had had no recurrence of the disorders from which, before treatment, he had so grievously suffered.

CASE 96.—*Gastralgia; Aching and Cramps of the Lower Extremities; Headache; Life-long Vomiting and Diarrhœa; Fits of Unconsciousness; Extreme Coldness of the whole Surface of the Body.*

James W., aged sixteen, who was brought to the Farringdon Dispensary by his mother March 18th, 1872, complained of frequently recurring attacks of "excruciating, crampy pains" in his stomach, accompanied by pain at the back of the head, vomiting, and diarrhœa. The attacks of "agony in the stomach," as his mother called them, were most prone to come on at one or two o'clock a.m., and always lasted several hours—often till one or two p.m. At the end of the paroxysm his prostration was extreme. These fits of pain usually occurred two or three times a week, or every second or third day, but sometimes more frequently: during the nine days immediately before I saw the boy he had been, his mother said, in continuous pain. The pain across the back and base of his head was less severe than the pain in his stomach, but more continuous: it very often lasted for days together. He often suffered from it without being sick, but he was never sick without having at the same time pain across the back of his head, and this pain was always much the most severe during his attacks of gastralgia and vomiting. The cramps in the lower extremities of which he complained were most severe in the toes and in the calves of the legs. He was also troubled with severe aching of the knees. Vomiting or nausea accompanied the gastralgia during the whole time of each attack: the vomiting recurred with the most distressing frequency; he was unable to retain anything in the stomach more than a few minutes, and between the paroxysms of vomiting he felt miserably sick. The diarrhœa from which he suffered was almost incessant. When the food which he took did not provoke vomiting it seemed to act almost always as an excitant of the bowels, causing diarrhœa. It

was a common experience for the bowels to be moved nine or ten times during the day, and several times during the night, the food seeming to pass in an undigested state. The patient also suffered from epilepsy, including not only ordinary epileptic giddiness, but also a very pronounced form of *petit mal:* his eyes presented a fixed aspect; his features, which were in no way distorted, remained placid, and he looked as if in reverie during a variable length of time—from several minutes to half-an-hour, consciousness being wholly absent meanwhile. He did not fall during these attacks, but sometimes reeled. They generally recurred every day—often several times a day. His sleep was very disturbed and unhealthy, even when he was free from gastric or enteric troubles: he often talked in a rambling manner as if delirious, or rolled his eyes about unconsciously. The whole surface of the body was remarkably cold, his extremities being most especially so, and his hands were purple. Sometimes he had severe shivering fits. Pulse excessively feeble—104. He was greatly emaciated, pale, extremely weak, and seemed very melancholy. When free from sickness he had a voracious appetite, and was extremely thirsty. The whole spine was remarkably tender, the third, sixth, seventh, eighth, and ninth dorsal segments being most especially so.

The boy said he had suffered in the manner just described ever since he could remember, and his mother, an intelligent and seemingly truthful woman, whom I cross-questioned very searchingly, made the surprising statement, which she persistently adhered to, that her son had suffered much in the same way *ever since his birth!* And both mother and son said that the longest period that they could recollect him to have remained free from diarrhœa was five days at a time, "and then," his mother added, "it was when he was taking diarrhœa mixture." He suffered less continuously from sickness than from diarrhœa, but the sickness was always accompanied with pain, both in the abdomen and at the back of the head. His mother thought that he had always suffered at the back of his head, and mentioned that he had large abscesses over the occiput on several occasions. The boy was born in the month of July, and, notwithstanding the warm weather, his skin was astonishingly cold and blue. He was suckled till he was two years old; but as an infant he was so emaciated by diarrhœa and vomiting that when his sisters carried him in the street they used to be stopped by persons who were struck by the child's emaciation and blueness. He was four years old before he could sit upright, and he had entered on his sixth year before he had cut his first tooth or could walk alone. During the two years immediately before I saw him his condition had become worse in all respects, the gastralgia especially being

much intensified. He had been an out-patient at the German Hospital and at Bartholomew's Hospital many times, he had also been at the Victoria Park Hospital, and had been treated by several private medical practitioners, but always without receiving any substantial benefit.

I prescribed in the first instance the application of the Spinal Ice-bag along the spine, from the middle of the cervical region down to the middle of the lumbar region, during three quarters of an hour three times a day.

On March 26th, his mother reported that his vomiting had lessened, and that his head was better. But as he suffered from toothache, which began on the 21st, the Spinal Ice-bag was not applied after the 22nd. I requested it to be re-applied during an hour three times a day, and that on each occasion it should be brought quite close up to the occiput.

April 1st.—The vomiting had again lessened, but he was still much troubled with nausea. The gastralgia was still severe, but like the vomiting, recurred less frequently than before. Pain in the back of the head had also lessened. The cramps in the toes and in the calves of the legs had quite ceased, but his knees still ached. The boy said,—"I am less giddy, and can keep more to myself:" by the latter phrase he meant that he did not so often pass into a state of unconsciousness, or of "deep thought," as his mother called it. She said he slept much better, and that she found him looking brighter, except when he was "suffering considerably." The diarrhœa was only slightly, if at all, lessened. I requested the treatment to be continued as before.

May 2nd.—The vomiting quite ceased April 3rd; the nausea, which gradually subsided, was no longer felt after about the middle of April; during the second half of that month he had no diarrhœa whatever—the bowels being moved only once daily, and only so much gastric pain as to be described by the boy himself as "just a trifle, and not often." His mother said his attacks of "deep thought" were much shorter and less frequent, and that everybody noticed how much better and brighter he looked. She added,—"He seems to feel so much stronger: he can do things so much better than he used to do." His feet had become continuously warm; and his appetite was excellent. The application of the Spinal Ice-bag was ordered to be continued each time until the bag should cease to be be cold.

May 7th.—No one of the symptoms previously reported as having subsided had recurred; and now every vestige of gastric pain had vanished; he had become "warm all over," the feet being especially, as he said, "nice and warm." He looked fresh, full in the face—florid even; his expression was wonderfully brighter and more intelligent, and his general strength had greatly increased.

There now remained only two elements of the original malady unsubdued: headache and *petit mal;* but these had become so comparatively slight that both the mother and father of the boy considered him cured, and thought it unnecessary to continue the treatment any longer. The pain across the back of the head had indeed ceased, and the "little headache" which he still had was "chiefly in the forehead"—a result, I apprehend, of the great and comparatively sudden increase of blood-supply to the previously starved cerebrum. He was now troubled with *petit mal* or fits of unconsciousness about once a day only, instead of several times as heretofore; and whereas they formerly lasted from several minutes to half-an-hour, they now often lasted only a few moments, and at most a minute or two.

The progress of this remarkable case was watched by my surgical colleague at the Farringdon Dispensary—Mr. John Waters, who was much impressed by the effects he witnessed. It is greatly to be regretted that the parents of the boy found it inconvenient to bear the expense of a daily supply of ice for him until his *petit mal* had been, as I believe it could have been, completely cured.

CASE 97.—*Infra-mammary Neuralgia; Pain between the Shoulders and along the Left Arm; Headache; Lumbar and Hypogastric Pain, together with Sickness, at the Menstrual Periods; "Faint Feelings;" Chronic Cough, with Copious Expectoration; Leucorrhœa; Extreme Coldness of the Feet; General Tenderness along the Spine.*

E. C., aged twenty, a housemaid, came to the Farringdon Dispensary March 20th, 1872, to obtain relief from pain in her left side. The pain was seated immediately below the left breast, and was very severe and continuous. She said,—"Continually something seems as if it went drag—drag—drag." Often the pain kept her awake a long time each night: during the two nights immediately before I saw her it did so. She was also much troubled with pain between her shoulders, and extending down her left arm. It was intermittent—coming and going at irregular intervals. She suffered from very severe frontal headache three or four times a week; and at every catamenial period she had intense pain in the lumbar and hypogastric regions during the whole of the first day, when she generally felt sick and often vomited. Besides these painful affections, she was troubled with a disorder called by herself "nasty faint feelings," which she described by saying,—"I feel something hot coming over me, and

then I grow very cold." This feeling seemed to come most frequently as if caused or induced by the infra-mammary pain, and, according to her sensations, was directly connected not only with it, but with the spinal cord: after the dragging pain in the side had lasted some time, "then," she said, "I have those nasty faint feelings, and then it goes to my back."

She had a considerable cough, which troubled her both winter and summer, and she expectorated "a lot of phlegm"—so much that she was "choked nearly in a morning the first thing." Her appetite was fairly good, but she did not enjoy her food. Tongue clean; bowels regular. The catamenia recurred every third week, and were fairly copious. She suffered from leucorrhœa, which was considerable, and which was markedly increased before each catamenial period. Her feet, she said, were always very cold: her mother added,—"They're like icicles now, sir." Pulse 75. The whole spine was extremely tender.

Her chief trouble—the infra-mammary neuralgia—had lasted twelve months, and at last disabled her from continuing at her work.

She was treated exclusively by means of the Spinal Ice-bag, applied in the first instance along the lower two-thirds of the spinal cord. After five days of treatment she reported that her headache was lessened, and that the pain between the shoulders and along her left arm had ceased; but that each time she applied the Spinal Ice-bag she felt a flushing in the face and giddiness, which came on about ten minutes after the ice was first applied, and lasted about twenty minutes. She also felt an "aching pain" across the lower and front part of the chest after the Spine-bag was removed. I then prescribed the application of one cell of the Spinal Ice-bag along the lower dorsal and upper lumbar region, and Pilulæ hydrargyri cum ext. colocynth c°, gr. v., p. r. n.

April 3rd.—The infra-mammary pain had already quite ceased; headache had occurred only once during the preceding week; the leucorrhœa had lessened; and the patient slept much better than formerly.

May 1st.—The headache had not recurred; the "faint feelings" had quite ceased; her cough had almost wholly subsided, and she expectorated "scarcely any phlegm at all;" during her last catamenial period she "hadn't a quarter so much pain" as she had formerly had, and she felt no sickness and no nausea; she had no longer any leucorrhœa, and her feet had become comfortably warm. Feeling well, she resumed her employment, and the treatment of her was discontinued.

CASE 98.—*Intense Headache; Delirium; Pain in the Abdomen; Incessant Vomiting in consequence of Pregnancy; Extreme Weakness and Emaciation.*

April 16th, 1872, I was requested to visit Mrs. P., aged twenty, who was suffering so severely from cerebral disorder and vomiting which her ordinary medical attendant seemed unable to control, that she was scarcely expected to live. When she was able to speak coherently she complained of intense pain in the head—"as if it would split open," and also of severe and incessant pain in the hypogastric region. She was vomiting or retching almost incessantly—night and day; she could retain and assimilate nothing; even water was being withheld from her, because if she took only a tablespoonful of it her retching immediately became more distressingly violent. Her pulse was about 60 per minute, wiry, irregular, and intermittent. Her eyes were sunken and dim; her countenance had lost much of its usual expressiveness; her mind rambled incoherently, and again, at brief intervals, she seemed to be normally conscious; and she was so wasted that she seemed mere "skin and bone": in short, she was sinking bodily and mentally from sheer starvation. Her head, and, indeed, the whole surface of her body, were hot and dry, and the skin on the palms of her hands was cracked, more or less, in various directions, owing to its extreme dryness. There was no diarrhœa. The patient had always enjoyed good health until she married at the end of 1871. When I first saw her an interval of six weeks had elapsed since she had menstruated; and three weeks after menstruation ceased she began to be sick. The sickness soon became incessant; being unable to sleep or rest at night she refrained during several nights from going to bed at all; and in the course of her period of sickness she had several attacks of maniacal unconsciousness. The prognosis expressed to her father by her medical attendant was of the gravest kind: even if she lived, which was scarcely to be expected, she would, he believed, be permanently insane, and it would be necessary to confine her in a lunatic asylum, as was the case of another of his patients whose sufferings began in the same way (!). He applied a blister over her stomach (!) and the sore it produced was still open when I first visited her.

Seeing how she was suffering for want of water I gave her some: it made her vomit immediately with great violence. As quickly as ice could be procured I applied it (between three and four p.m.) in a Lumbar Ice-bag across the occiput, from ear to ear, in order to soothe the brain; and then, having filled the

upper two cells of a twenty-inch Spinal Ice-bag, I applied them along the spine from the fourth lumbar vertebra as far upwards as they would reach, viz., to the fifth or fourth dorsal vertebra: in about ten minutes the patient was completely soothed. I then removed the bag from across the occiput, but left the other one applied along the spine: in ten minutes more she was fast asleep. Having absented myself for a time, I returned at 5·30 p.m., and found that she had been sleeping soundly during nearly the whole time of my absence. She had taken water twice, and had kept it the second time. As the ice had melted I requested the bag to be replenished, and I immediately applied it again. She soon fancied some tea, which I had had carefully made and mixed with an equal quantity of milk: of this she drank a breakfast cupful, and kept it. Her pulse had risen to 69, and had improved in quality. I requested the Spinal Ice-bag to be applied continuously, a fresh supply of ice being put in it every second hour unless the patient should be asleep.

April 17th, 4 p.m.—The Spinal Ice-bag had been applied as directed. The sickness had almost wholly abated: she had been sick only once, viz., after taking some water in the night. She had slept nearly the whole of the night, and a considerable part of the day. An enema which was given brought away a large accumulation of fæces. She afterwards took a cup of tea, with a large proportion of milk in it, and again kept the whole of it. She was altogether wonderfully better, and since her sleep the previous day had not once lapsed into delirium. I now directed the Spinal Ice-bag to be applied four times a day, and each time to be kept on until the ice in it should be melted, unless, meanwhile, it should cause discomfort.

April 18th.—The ice had been used as directed. She had taken tea with milk, barley-water—rather thick, and a small piece of sole, and had retained the whole. The pain in her head had very much lessened, and she was able to sit up and have her hair combed out. Her pulse, which was 68, had become fairly steady.

April 20th.—She was sick once, but only slightly, on the 19th—not at all afterwards. She ate some sole and took milk freely without any inconvenience. She bespoke roast mutton for her dinner on the morrow—Sunday. Her pulse was 66, soft and steady; and her hands, instead of being dry and cracked, had become healthily moist. I directed that the Spinal Ice-bag should be applied before breakfast during an hour, after dinner and tea during three quarters of an hour, and at any other time if she should become sick.

April 24th.—On the evening of the 20th she had oysters for supper, and enjoyed them. On the 21st, Sunday, she felt sick at

breakfast: the Spinal Ice-bag was applied, and the sickness was rapidly subdued. She dined at the family table, and was so well that she played the piano to her father afterwards. On the 22nd she continued free from sickness. On the 23rd she went down stairs to breakfast, and went out afterwards. At the date of this report, the 24th, she had had no sickness since the morning of the 21st; her bowels had acted each day; she had been free from both headache and hypogastric pain during several days: she declared herself "all right," and, indeed, looked not only quite well, but several years younger than she appeared to be when I first saw her. I advised her to re-apply the Spinal Ice-bag if the symptoms should recur, and took my leave.

CASE 99.—*Gastralgia; Intense Backache; Prolonged Vomiting and Diarrhœa; Leucorrhœa; Epilepsy.*

April 26th, 1872.—I was requested to meet in consultation the medical attendant of Mrs. A., aged about thirty, who was suffering from a combination of troubles, which the drugs that had been prescribed seemed unable to alleviate. She had great pain, much intensified during vomiting, at the cardiac orifice of the stomach, and extraordinarily severe pain—"something beyond bearing," she said, along the dorso-lumbar region. It was most severe in the mornings and evenings. She suffered from retching, vomiting, and diarrhœa almost incessantly, and from leucorrhœa also: she was, moreover, a victim to epilepsy.

On an average she was troubled with retching or vomiting seven or eight times a day. "If one merely talked about dinner," her husband said to me when I last saw him, "let alone having it, she began to retch." The mere smell of it made her do so. The ejected matters were not infrequently tinged with blood; and sometimes she threw up small dark clots of blood. Often on waking in the morning she found her mouth bloody, and the pillow stained with blood.

Her bowels never acted naturally: they were always relaxed, and though sometimes she might pass a couple of days fairly free from diarrhœa, they were often moved ten or twelve times a day. Unlike the vomiting, the diarrhœa was accompanied with but little pain.

The attacks of vomiting, accompanied with gastric pain, and the diarrhœa, on account of which my advice was requested, began a-fresh at the end of October, 1871. From that date until I saw her she had not passed a week free from them. Her husband said,—"I don't think she ever had a day free from them." The

things her stomach was least prone to reject were tea—sometimes with eggs beaten up in it—brandy, bread and butter, and occasionally—when she fancied it—some crab or lobster: meat and vegetables she could not digest at all.

Her "fainting-fits" or epileptic attacks were wont to recur, at the period when I was first consulted, from three or four times a week to three or four times a day. Each attack lasted generally about fifteen minutes, but sometimes much longer. During an attack she became rigid, sometimes the extensor, and sometimes the flexor muscles being most powerfully affected; her jaws were firmly clenched, and in many of her attacks there was violent opisthotonos. She generally lost her consciousness entirely; but she thinks that on rare occasions she did not wholly do so. When recovering she always complained of "a shivering feeling."

In her girlhood, and on the very day she began to menstruate the first time, two girls dressed themselves up in white sheets, and so frightened her that she instantly fell in a fit, the catamenia suddenly stopped, and during many months afterwards she had several fits *every day*. Gradually the fits recurred at more distant intervals, until about a year before her marriage, which took place when she was twenty-one years old, about nine years before I saw her, she had a fit only occasionally—"once in one or two months." They subsequently became more frequent again, were especially frequent during her last pregnancy, and, as already mentioned, up to the time when I was requested to see her.

During the several years which elapsed between the time of her fright and that of her marriage, she menstruated only twice, but had been long afflicted with profuse and continuous leucorrhœa. In the course of her first pregnancy she suffered from retching, vomiting, and diarrhœa during about three months, and had many fits. During her second and her third pregnancy she suffered in the same way. During her fourth pregnancy she was extremely nervous: she started, jumped, looked under the bed each night—fearing someone might be beneath it, and suffered from sickness, diarrhœa, and fits, even more severely than on former occasions. But during *the whole* of her fifth pregnancy—her last before my advice was requested—she suffered from sickness and diarrhœa continuously, and from fits with terrible frequency. Her sickness and diarrhœa ceased only with her delivery; and then, after an interval of relief, her sufferings began again, though she was not again pregnant, at the end of October, 1871, as already mentioned.

Up to the time I was consulted her medical attendant had tried everything he could think of in the hope of relieving her, but without success. I treated her solely by the Neuro-dynamic method, applied the Ice-bags myself in the first instance, gave

very careful instructions to her sister concerning their re-application, and took my leave. This was on the 26th of April. On the 27th she continued sick, but less violently than before; on the 28th she vomited once, and then both vomiting and retching ceased entirely. Her gastric pain subsided along with her retching. The diarrhœa was gradually subdued, and at the end of the sixth day of treatment also completely ceased, and did not recur. Meanwhile her backache and leucorrhœa had markedly lessened; and after the first application of the Ice-bag she had not a single fit! The treatment which effected these extraordinary results extended only over nine days, and was then wholly discontinued.

I saw this patient again June 10th, after the treatment had been discontinued upwards of a month: she continued free from gastric pain, sickness, and diarrhœa, although she felt threatenings of the return of the latter; she was still troubled with leucorrhœa—but not profusely, and with some backache; she feared she was again pregnant. From the time I first applied the Spinal Ice-bag she had not had one fit. Her appetite was excellent, and she felt, she said, better than she had done for years: she added,—"I now feel that life is worth living." Having given her further directions how to proceed in order to prevent fresh invasions of her enemies, I took my leave, and never saw her again.

CASE 100.—*Sciatica; Shooting Pains in the Head; Giddiness and Mental Confusion; Deficient Catamenia; Periodical Shivering; Coldness of the Feet.*

May 11th, 1872, I was consulted by Mrs. T., aged thirty-eight, whose chief malady was sciatica—on the right side. The pain extended along the line of the sciatic nerve into the popliteal space, and thence down the back of the leg. The pain over the outer side of the thigh was especially severe. Her suffering came on in paroxysms, which were generally brief in the day-time, but intensely severe at night. She usually went to sleep soon after going to bed, and then after a short time was woke up with the onset of a paroxysm. She was in the habit of getting up and walking about the room when the paroxysms came on; by doing so she seemed to bear them better, and sooner obtained relief from them, she thought, than when she remained in bed. Often she got up for the same purpose several times in one night. She had been suffering in the manner described about six weeks when I first saw her. In the previous autumn she had suffered in the same way about two months, and in 1869 about three months. She also complained of giddiness and of "sudden attacks of confusion:" she said,—"When they come on I feel as if I were

going to lose my senses." The giddiness troubled her frequently, but very irregularly in respect to time—sometimes several times in one day, sometimes not at all; the "confusion" occurred two or three times a day—"sometimes it was just momentary, sometimes it lasted a little longer."

The catamenia recurred regularly, but lasted only about two days, and were very scanty. She gave birth to a child seventeen years previously, and three months afterwards, while still suckling, the menses recurred very profusely; and when, afterwards, she weaned the child, they began very notably to decrease, and ever since had continued remarkably deficient. About a week before the reappearance of the catamenia, she was on each occasion, she said, "taken with cold shivers," which recurred frequently each day till the flow came on. Her feet were generally cold—"often very cold." Pulse 72; bowels regular.

The treatment in this case was throughout and chiefly by means of the Spinal Ice-bag: during the first fortnight she took no medicine.

May 25th.—The paroxysms of sciatica were already lessened, those occurring in the day most notably so.

June 1st.—Her head was much better: "nothing like so much giddiness." But she still had shooting pains occasionally. Her feet were certainly warmer." In addition to the use of the Spinal Ice-bag, as before, I prescribed—Potassii bromidii, gr. xv.; tincturæ conii, ℥xx; aquæ camphoræ, ℥j., omni nocte.

June 8th.—The paroxysms had become still less severe at night, and in the day-time she had only "just a little pain sometimes." Her head was altogether better, and her feet continued warm. I requested the Spinal Ice-bag to be continued as before, and to be used throughout her menstrual period.

June 14th.—The pain at night was very much lessened, and in the day-time she scarcely had any pain at all. Her giddiness had become much less frequent.

June 29th.—The sciatic pain had become so slight that she did not get up at night at all.

July 13th.—She had been quite free from pain every night during the previous week. She said,—"I just feel the pain a little at times in the day-time; it's only momentary—very trifling." She complained, however, of heaviness of the head. The Spinal Ice-bag was still continued, and instead of the medicine previously taken, the following was prescribed:—Ammonii bromidii, gr. x.; tincturæ calumbæ, ℥j.; aquæ, ad ℥j., bis die.

July 20th.—She had continued *quite* free from sciatica both by night and day, from pain in the head also, and almost entirely free from giddiness and confusion. She said,—"I think I may consider myself well."

August 3rd.—She had wholly ceased to feel giddy or confused, and said,—"My nights are quite delightful." She was requested to omit medicine altogether, and to continue the application of the Spinal Ice-bag twice instead of three times a day.

August 17th.—Her catamenia had recurred without being preluded by shivering, and were of brighter colour and slightly more copious than formerly; her feet continued warm; she had had no return of giddiness, confusion, or pain of any kind; she slept well, and felt quite well in all respects. Treatment was therefore discontinued.

December 10th.—The patient's husband informed me that since the date of the last report she had continued well in all respects.

POSTSCRIPT.

In confirmation of the views respecting the pathology and treatment of sciatica exemplified in the case last described, as well as of the doctrine, expressed at p. 230 *et seq.*, of my work on "Neuralgia and Kindred Diseases of the Nervous System," concerning the nature of the change induced in the nervous centres by the action of cold on the general surface of the body, I may mention an instructive fact experienced by myself. On the 28th November, 1872, while sitting in my consulting-room, which being large, is with difficulty kept agreeably warm in cold weather, I suddenly experienced, about 4 p.m., severe pain along the lower third of the spine. I felt cold generally; but the whole of the lower extremities were especially cold. Anxious to complete some work I was doing, I put a rug around my legs and continued at my desk. The pain persisted, and early in the evening any movement involving flexion of the spine increased the pain, and caused it to be felt more widely across the back. I then applied a Lumbar Ice-bag along the lower third of the spine, and before all the ice had melted the pain had very nearly ceased so long as I sat still. I then left London for the night. On reaching home, the back-ache had recurred, but in a subdued form; the whole of both the lower extremities ached severely, and I found that stooping, sitting down, and rising up increased the pain considerably both in the back and in the whole of the muscles of both hips. Knowing that during several days previously, and especially during the afternoon in question, I had allowed my feet and legs to become very cold, I concluded that I had "taken cold," and therefore, before going to bed, put myself in a warm bath, and remained in it at a temperature of 100° during about forty-five minutes. It seemed at the time to afford appreciable relief; but during the night the aching was considerable, and the next day was severe both in the back and throughout the extremities—the pain and stiffness in the hips being especially pronounced.

In the afternoon of that day I took a Turkish bath, sweated profusely, and again felt some relief; but on the following morning the aching, stiffness, and immediate increase of pain by movement were quite as great as before. I then began the regular use of ice—applying it to the lower half of the spine during several hours each day, the last application being after I went to bed at night. At the end of the first day the symptoms were markedly abated, and at the end of the fourth day they had completely vanished. On the following day I resumed my habit of taking a cold shower-bath each morning, and quickly after the use of the first bath the symptoms returned. Its use was again suspended, and the Spinal Ice-bag was re-applied twice that day. The next morning I rose quite free from pain and stiffness, and up to this time (December 21st, 1872) have continued so.

Now, in this case, although there is reason to believe that the symptoms were the effects of the influence of cold on the peripheral expanse of sensory nerves over the lower half of the body, the counteracting influence of heat, subsequently applied by means of both a prolonged warm bath and a Turkish bath to the whole of that expanse, failed to do more than effect a temporary amelioration; whereas cold, applied by means of the Spinal Ice-bag, to the central ends of those same nerves rapidly and completely cured the disorder. This experience is but one proof more added to the many already given that the condition precedent of pain is hyperæmia of the root of the algic nerve, and that, by removing that condition, the pain may be abolished. Moreover, in this case, as just remarked, there is reason to believe that the symptoms were induced by cold in the manner described: I feel assured that they were, and that no other cause is assignable. But if they were, then it is manifest that cold applied to the periphery of the body induced excitement and hyperæmia of the sensory cells of the spinal cord,—a result strikingly accordant with the views I have expressed, in contravention of those of Dr. Anstie, concerning the nature of the effects on the nervous centres of cold applied to the periphery of the body.

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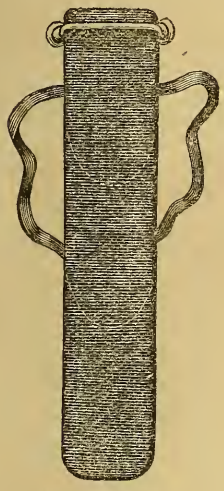
DESIGNED FOR THE PRACTICAL APPLICATION OF THE PRINCIPLES OF NEURO-DYNAMIC MEDICINE.

THE SPINAL ICE-BAGS vary in breadth from two to four inches and a quarter, the shortest bag being the narrowest, and the longest the broadest. Their lengths are as follows:—



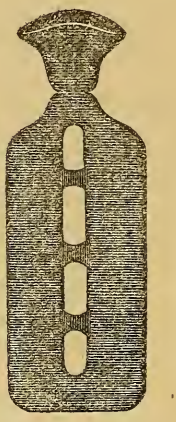
SPINAL ICE-BAG.

8 inch, 10 „, 12 „ } suitable for children.
14 „, 16 „, 18 „ } suitable for youth of both sexes.
20 „, 22 „ } suitable for women.
24 „, 26 „ } suitable for men.

Lumbar Ice-Bag, 10 inches long.

THE SPINAL WATER-BAGS are in respect to size as follows:

6 inch } suitable for youth of both sexes.
8 „, 10 „, 12 „, 14 „ } suitable for adults of both sexes.



SPINAL WATER-BAG.

THE SPINAL ICE-BAG is divided into cells, generally three. By this arrangement the ice, being prevented from falling from the upper parts to the bottom of the bag, can be kept in apposition with the whole or any special part of the spine, even though the patient should be upright, or should walk about. The mouths of all the cells are so effectively closed by means of a clamp that no water can escape, even though the whole of the ice be melted.

The bags are sold by the following Agents:—

LONDON: C. MACKINTOSH & CO., the Manufacturers, 83, Cannon Street, E.C.
S. MAW, SON, & THOMPSON, 11, Aldersgate Street, E.C.
JOHN G. GOULD, 198, Oxford Street, W.
GLASGOW: THOMAS CHAPMAN, 56, Buchanan Street.
PHILADELPHIA: J. MARDON WILSON, JUN.
CALCUTTA: WYMAN & COMPANY, 1, Hare Street.

AND MAY BE HAD BY ORDER OF ALL DRUGGISTS.

A pamphlet containing directions how to select a suitable bag in each case, and how to fill and apply it, as well as other information concerning its use is supplied, gratis, by the agents.